

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Walt Disney Parks and Resorts U.S., Inc.,  
Petitioner,

v.

Agile Journeys LLC,  
Patent Owner.

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Case [To be assigned]  
Patent 7,212,983

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**DECLARATION OF DR. HENRY HOUH IN SUPPORT OF DISNEY'S  
PETITION FOR *INTER PARTES* REVIEW OF  
U.S. PATENT NO. 7,212,983.**

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I, Dr. Henry Houh, declare:

## **I. INTRODUCTION**

### **A. Engagement**

1. I have been retained by Petitioner Walt Disney Parks and Resorts U.S., Inc. and The Walt Disney Co. to offer technical opinions relating to U.S. Patent No. 7,212,983 (“the ’983 Patent”) and prior art references relating to its subject matter.<sup>1</sup>

2. Based upon the facts and information available to me to date, I will detail my opinions that are relevant to this petition for IPR. I am prepared to provide expert testimony on the opinions I express if asked about those issues by the Board or others.

3. In this Declaration, I discuss my own work, teachings, and knowledge of the state of the art in the relevant time period, and I cite technical literature (like handbooks and textbooks) to demonstrate the state of the art in the relevant period.

4. Throughout this declaration, I refer to specific line numbers or page numbers of the relevant prior art or other technical documents. Those citations

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<sup>1</sup> For brevity, when providing citations herein, I will generally refer to the name of the reference, rather than the exhibit number. The exhibit numbers associated with each reference can be found in Appendix B.

might not be exhaustive—there may be more evidence to support a particular proposition than I cite here in this Declaration.

**B. Background and Qualifications**

5. The details of my background and education, and a listing of all publications that I have authored, are provided in my Curriculum Vitae, a copy of which is submitted as EX1004. The following is a brief summary of my relevant qualifications and professional experience.

6. I received a Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (“MIT”) in 1998. I also received a Master of Science degree in Electrical Engineering and Computer Science in 1991, a Bachelor of Science Degree in Electrical Engineering and Computer Science in 1989, and a Bachelor of Science Degree in Physics in 1990, all from MIT.

7. During my college studies, I focused on communications and data networking. I took specialized courses including graduate courses in telecommunications networks, optical communications, and data networking. I, along with other graduate students in a networking research group, maintained both the computer workstations and the networking devices in the research group.

8. I have worked in data networking, distributed networking systems, and networked information systems on several occasions. As part of my doctoral research at MIT from 1991-1998, I worked as a research assistant in the Telemedia

Network Systems (“TNS”) group at the Laboratory for Computer Science. The TNS group built a high-speed gigabit ATM network and applications which ran over the network, such as remote video capture (including audio), processing and display on computer terminals. In addition to helping design the core network components (such as the ATM switch), designing and building the high-speed ATM links, and designing and writing the device drivers for the interface cards, I also set up the group’s web server, which at the time was one of the first several hundred web servers in existence. I also set up log monitoring and data analysis systems on the web server.

9. The TNS group was the first group to initiate a remote video display over the World Wide Web. Vice President Al Gore visited our group in 1996 and received a demonstration of—and remotely drove—a radio-controlled toy car with a wireless video camera mounted on it; the video was encoded by TNS-designed hardware, streamed over the TNS-designed network and displayed using TNS-designed software.

10. I authored or co-authored 12 papers and conference presentations on our group’s research. I also co-edited the final report of the gigabit networking research effort with Professor David Tennenhouse and Senior Research Scientist David Clark. David Clark is generally considered to be one of the fathers of the Internet Protocol and served as Chief Protocol Architect for the Internet. With its

focus on networking, the group, including myself, set up and maintained the network and computer systems. These systems included the networking on the workstations and desktops, the distributed file system, desktops and workstations, setting up and maintaining the distributed file system (Network File System) and the authentication system (Network Information Service, formerly known as Yellow Pages).

11. I also co-authored a paper titled “Active Pages: Intelligent Nodes on the World Wide Web,” which was presented at the first World Wide Web Conference held at CERN (the birthplace of the web) in Geneva, Switzerland, in May 1994. This paper presented our group’s database-backed web pages, which were one of the first examples of web applications that could be dynamically assembled based on data held in a database, and in which users were able to submit updates to the data as well. I also co-authored and presented another paper on our web-based video demonstrations at the same conference.

12. I defended and submitted my Ph.D. thesis, titled “Designing Networks for Tomorrow’s Traffic,” in January 1998. As part of my thesis research, I analyzed local-area and wide-area flows to show a more efficient method for routing packets in a network, based on traffic patterns at the time. My thesis involved capturing and analyzing flows of data in the network and the routing efficiencies gained by labeling the flows at the edge of the network, and routing the

data based on the label instead of the IP destination address. My analysis included different methods of setting up the granularity of the flows for the most efficient use of routing resources. My thesis also addressed real-time streamed audio and video. The network traffic that I analyzed was IP protocol traffic, including UDP and TCP.

13. From 1997 to 1999, I worked at NBX Corporation, which was acquired by 3Com Corporation in 1999. During this time, I was a Senior Scientist and Engineer working in IP Telephony. NBX delivered the world's first fully featured business telephone system to run over a data network, the NBX100. NBX was one of the first business phone systems to be configurable via a web interface. Users and administrators had access to varying levels of configuration for the phone system.

14. As part of my work at NBX, I designed the core audio reconstruction algorithms for the telephones which depacketized the voice data and reconstructed the audio. In addition, I designed the voice data packet transmission algorithms. I also created a system to capture and analyze network packets sent by devices in the NBX system for monitoring, testing, and debugging. The system provided analysis across separate packets in order to diagnose problems and errors within the system. I also designed and validated the core packet transport protocol used by the phone system. In addition, I designed and oversaw the development of the

underlying transport protocol used by the NBX100 phone system for reliable packet transport.

15. I, along with two of NBX's founders, was awarded U.S. Patent No. 6,967,963 titled "Telecommunication Method for Ensuring On-Time Delivery of Packets Containing Time-Sensitive Data," for some of the work we did while at NBX.

16. After NBX, I worked at Teradyne, a test tool company primarily focused on semiconductors. Teradyne had recently acquired Hammer, a company that specialized in load and functional testing for telecommunications systems. The Hammer product is well known as a telecom test, measurement, and monitoring tool. Teradyne spun out Hammer and several other internal divisions into an independent company called Empirix. I became Chief Technologist of the Hammer division of Empirix. Empirix was a leader in VoIP network testing and monitoring. The Hammer was also used by one of the Empirix business units to provide testing and monitoring of interactive voice response units and call centers. I worked with members of this business unit on some projects and we received U.S. Patent No. 7,590,542, titled "Method of Generating Test Scripts Using a Voice-Capable Markup Language" for some of the work I did with them.

17. At Empirix, I laid out a new multi-year product vision for data network testing and monitoring, secured internal funding for the effort, and led a

team to deliver a new technology platform to the market in February 2001. This new product, PacketSphere, initially emulated network behavior so that wide-area VoIP connections could be tested in a lab. A later release allowed PacketSphere to generate high volumes of VoIP calls, including media streams, and to monitor the quality of VoIP voice streams. PacketSphere was also used in the Storage Area Network area. Later, the core technology was added to other Empirix products such as Empirix's Hammer XMS to monitor thousands of VoIP media streams in real time to determine their quality. PacketSphere was Empirix's most successful new platform introduction at the time. Companies purchased the PacketSphere product to emulate an Internet Protocol network to see the effects of deploying their product on the Internet prior to launch. PacketSphere received several industry awards.

18. In addition, I worked with the web testing business unit of Empirix on a number of new and upgraded products. I specified and prototyped a website security threat assessment tool, which we previewed with some potential customers and used to find some security threats on their websites. We received U.S. Patent No. 7,975,296, titled "Automated security threat testing of web pages," for some of the work I did on this project. Empirix also provided the use of our web testing tool as a service to companies, some of which used our tool to continuously monitor their websites for performance issues.

19. During my time at Empirix, I presented lectures on VoIP and data network testing and monitoring to companies, including Lucent Labs (formerly AT&T Bell Labs). I was also invited to present several guest lectures in a software engineering course at MIT involving the design of web-based applications. Since then, I have also participated twice as a unit lecturer in an experimental course that was taught by an Institute Professor (the highest award that an MIT Professor can achieve) and sponsored by the Chairman of the MIT Corporation (MIT's board of trustees).

20. From 2004 to 2008, I was employed by BBN Technologies Corp., a technology research and development company located in Cambridge, Massachusetts. BBN Technologies is a world-renowned company with expertise in acoustics, speech recognition, and communications technology. BBN Technologies staff have pioneered many internetworking technologies and Internet applications and have built some of the world's largest government and commercial data networks.

21. My duties and responsibilities at BBN Technologies generally included commercialization of the technologies developed by BBN Technologies, which included spinning off companies and growing commercial businesses in-house. I worked on commercializing a service offered by BBN to monitor call centers and provide analytical data on each call. The business became known as

AVOKE Analytics and provided call center analytics for large organizations such as Dell and the Centers for Medicare and Medicaid Services (CMMS). For a time, during the rollout of the Affordable Care Act (though I was no longer working at BBN), AVOKE Analytics gathered data and provided call-by-call analytics for every call made to the CMMS main call center.

22. In addition, I was involved in utilizing the award-winning AVOKE STX speech recognition technology to create the public audio/video search engine EveryZing (formerly known as PodZinger) which was spun out into a stand-alone company now known as RAMP, Inc. PodZinger won the 2006 MITX Technology Award for best Web 2.0 Application and was also named the 2006 Forbes Favorite Video & Audio Search Engine, beating out Google, Yahoo, and other companies. After managing the creation of the initial prototype system, PodZinger built out a full streaming audio and video search solution when I was the Vice President of Operations and Technology there. During this time, I also was the co-inventor of several patents directed to automatically creating media channels based on user search terms (U.S. Patent #9,697,231, “Methods and apparatus for providing virtual media channels based on media search” and targeting advertisements to users based on the content of audio and videos they watch (U.S. Patent #9,697,230, “Methods and apparatus for dynamic presentation of advertising, factual, and

informational content using enhanced metadata in search-driven media applications”).

23. I was also involved in the Boomerang Mobile Shooter Detection project as the Vice President of Engineering for the program. The Boomerang system was deployed to Iraq and Afghanistan and was credited with saving many lives.

24. Around 2007 while I was at BBN, I also created a social network focused on sharing information, such as updates and photographs, among private groups. The back-end application also automatically compiled photographs of the group to create booklets that could be easily presented to the user and downloaded in PDF format. In 2008 BBN sold this effort to a venture backed start-up company, and I left BBN to become the CTO of this startup.

25. In 2012, I opened Einstein’s Workshop, a 7,000-square-foot facility for teaching science, technology, engineering, and math to children. I created courses, hired the staff, trained staff, and oversaw the financial management of the company, and provided approximately 300,000 student instruction hours in our STEM courses. We also created an educational 3D Computer-Aided Design program, which we spun-out into a separate company, BlocksCAD. BlocksCAD has received grants from DARPA DSO and the USDA and has participated in the LearnLaunch, MIT Play Labs, and MassChallenge accelerator programs.

BlocksCAD currently has over 200,000 registered users and is used in schools throughout the United States.

26. From 1989 to 1990, I worked at AT&T Bell Laboratories on optical computers. This work generated six peer-reviewed papers, and multiple U.S. and European patent applications in which I was named as a co-author or inventor. I also interned at AT&T Bell Laboratories in 1987 and 1988. Additional relevant experience in the field of computer networking is listed in my Curriculum Vitae.

27. I am a named inventor on several additional patents including: U.S. Patent No. 6,967,963, titled “Telecommunication Method for Ensuring On-Time Delivery of Packets Containing Time-Sensitive Data”; U.S. Patent No. 7,801,910, titled “Method and apparatus for timed tagging of media content”; U.S. Patent No. 9,697,231, titled “Methods and apparatus for providing virtual media channels based on media search”; and U.S. Patent No. 9,697,230, titled “Methods and apparatus for dynamic presentation of advertising, factual, and informational content using enhanced metadata in search-driven media applications.”

### **C. Information Considered**

28. My findings contained in this declaration are based on my education, research, experience, and background in the fields of network computing and cybersecurity, as well as my review of prior-art references and other documents disclosed in this declaration. In forming my opinions, I have studied and

considered the '983 Patent, the file history of the '983 Patent, as well as the other materials referenced in Appendix B. Counsel has informed me that I should consider these materials through the lens of one of ordinary skill in the art related to the '983 Patent, at the time of the earliest purported priority date of the '983 Patent, and I have done so during my review of these materials. I have been asked to assume, for purposes of this Declaration, that the '983 Patent has a priority date of May 15, 2001 (the “**Critical Date**”).

29. My analyses are based on my years of education, research, and work experience, as well as my investigation and study of relevant materials. In my analyses, I have considered the materials that I identify in this Declaration and those listed in Appendix B.

30. I may rely on these and additional materials to respond to arguments raised by the Patent Owner. I may also consider additional documents and information in further analyses—including documents that may not yet have been provided to me.

31. My review and assessment of the materials provided in this proceeding is ongoing, and I will continue to consider any new material as it is provided. I reserve the right to review, supplement, and amend my analyses based on new information and on my continuing review of the materials already provided.

## **II. LEGAL STANDARDS**

### **A. Person of Ordinary Skill in the Art**

32. A person of ordinary skill in the art (“**POSITA**”) in the field of the ’983 Patent would have the equivalent of an undergraduate degree in computer science, engineering, operations research, or similar discipline, along with one year of experience in computer programming. The more education one has, the less experience needed to attain an ordinary level of skill. Similarly, more experience in the field may serve as a substitute for formal education.

### **B. Legal Standard**

#### **1. Anticipation**

33. I understand that a patent claim is invalid when the invention that it claims is not new. To establish that a claimed invention is not new (a.k.a., “not novel”), I understand that one may establish that a single publication, or other reference in the prior art discloses (explicitly or inherently) every element required in a patent claim (i.e., all features or “limitations” recited in the patent claim). I understand that a reference in the prior art “anticipates” a claimed invention if that reference discloses, either explicitly or inherently, every element of the claim.

34. I understand that “prior art” and “prior art reference” are legal terms of art referring to, for example, devices, methods, and publications that predate the earliest effective filing date of the claimed invention.

35. I understand that a prior art reference that anticipates a claim may disclose an element or limitation of a patent claim expressly or inherently. A prior art reference discloses an element or limitation of a patent claim inherently when the prior art's disclosure necessarily requires or implies that the claimed element or limitation be present in the process, machine, manufacture, or composition disclosed. I understand there is still considered to be an inherent disclosure even if the author of the reference did not describe or understand the underlying inherent principle. I understand that one may establish that a prior art reference inherently discloses a claimed element or limitation through the use of other reference material or through testing.

36. I understand that the description in a written reference does not have to be in the same words as the claim, but a POSITA must understand from the written description that the inventor had possession of the claimed invention. Furthermore, a POSITA looking at that one reference would be able to make and use the claimed invention without undue experimentation.

37. I understand that any prior art reference that can be considered for purposes of determining whether it anticipates a patent claim may also be used to determine whether the reference renders that claim obvious, as discussed below.

## **2. Obviousness**

38. I understand that, even if a claim is not fully disclosed in a single prior art reference, the patent claim is invalid if the invention would have been obvious to a POSITA at the time of the invention. In particular, I understand that a patent claim is normally invalid as obvious if it would have been an “ordinary innovation” within the relevant field to create the claimed product or method at the time of the invention.

39. I understand that the relevant portion of pre-AIA Section 103, subsection (a) of the Patent Act states:

“A patent may not be obtained through the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

40. I understand that, by way of example only, a claimed invention is obvious if:

it combines prior art elements according to known methods to yield predictable results;

it simply substitutes one known element for another to obtain predictable results;

it uses a known technique to improve similar devices (methods, or products) in the same way;

it applies a known technique to a known device (method, or product) ready for improvement to yield predictable results;

it was “obvious to try” in that the inventor chose from a finite number of identified, predictable solutions, with a reasonable expectation of success;

known work in one field of endeavor prompted variations of it for use in either the same field or a different one based on design incentives or other market forces and those variations were predictable to one of ordinary skill in the art; or

some teaching, suggestion, or motivation in the prior art led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

41. When considering obviousness, I understand that I am to: (i) decide the level of ordinary skill in the field that someone would have had at the time the alleged invention was made; (ii) determine the scope and content of the prior art; (iii) determine what differences, if any, existed between the prior art and the Asserted Claims; and (iv) consider objective evidence of non-obviousness (also known as secondary considerations). Further, when considering obviousness, I

understand that it is not necessary to seek out precise teachings, and it is permissible to consider the inferences, common sense, and creative steps that a POSITA (who is considered to have an ordinary level of creativity and is not an automaton) would employ.

42. I understand that objective evidence relevant to the issue of obviousness may also be considered. This type of evidence is sometimes referred to as “secondary considerations,” and may include evidence of commercial success, long-felt but unsolved needs, failure of others, and unexpected results. I understand that any secondary evidence must have a nexus to the relevant claims. For example, I understand that commercial success must have a nexus to features of the alleged invention not disclosed in the prior art, and in particular the prior art references which support an obviousness theory. In other words, I understand that commercial success is material only if it comes from the merits of the claimed invention beyond what the prior art disclosed. With respect to secondary considerations, I understand that Patent Owner bears the burden of proof, and I have seen no evidence to date that any secondary considerations would establish non-obviousness.

### **C. Claim Construction**

43. I understand that in an *inter partes* review, claims must be given their ordinary and customary meaning, as understood by one of ordinary skill in the art

in light of the specification and prosecution history. I apply that standard in my analysis below to the words and phrases in the claims of the '983 Patent.

**1. “presentation means”**

44. Claims 1 and 3 recite a “presentation means.” This term is a means-plus-function term under 35 U.S.C. 112, ¶6. Counsel has informed me that 35 U.S.C. 112, ¶6 provides:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

45. Claims 1 and 3 each recite a “presentation means” that can perform the function of (a) “receiv[ing] said itinerary from said computer” and (b) “present[ing] said itinerary to said party.” ('983, claims 1, 3.) The '983 discloses that “a party arriving a facility” can receive a “portable computer.” ('983, 11:1-4.) This computer “has a display screen 130” that is “used to present various forms for gathering or displaying information.” (*Id.*, 11:8-11, 11:33-42.) Dependent claim 16 similarly recites that the “presentation means” can include “a screen.” (*Id.*, claim 16.) Thus, “corresponding structure” for performing the recited functions includes “display screen 130.”

### III. OVERVIEW OF THE '983

46. The '983 claims a system and method for “creating itineraries for a party of visitors to a facility,” such as “a zoo, theme park, historic area, or shopping district.” ('983, Abstract, 1:8-11.) The patent argues that “facilities” often include “many attractions,” which can “amount[] to information overload” for visitors. (*Id.*, 1:42-58.) It adds that “long waits” for attractions can also “degrade a visitor’s experience,” causing “portions of the population to avoid some facilities.” (*Id.*, 2:50-52.) The patent explains that “[a] tourist wants to see and do the most interesting things available, with a minimum of inconvenience.” (*Id.*, 1:32-33.)

47. The '983 purports to address these “problems” through a system and method that can provide a “customized” itinerary of “attractions” to a party. (*Id.*, claims 1, 3.) The claimed invention includes “information” about a party, such as her attributes and interests. (*Id.*, 6:20-48, Fig. 1.) It similarly includes “data” about a “first set” of attractions, such as whether attractions are “children” or are “height limited.” (*Id.*, 18:15-20:65, Fig. 10.) “Attractions” can range from “rides” to “movies” to “attractions within a city,” “state,” or “country,” and, even more generally to, “areas.” (*Id.*, claim 12.)

48. A “computer” (*e.g.*, “portable computer 100”) can then access the party information and attraction data and use this to “select” a “second set” of

attractions from the “first set” of attractions. (*Id.*, claim 1, 3.) The claims recite that at least one attraction is selected based on party information and attraction data matching. (*Id.*) The selected attractions can then be used to create a “customized” itinerary, which can be sent to the party for display on her portable computer’s screen (*e.g.*, “display 130”). (*Id.*)

#### **IV. THE ELEMENTS IN CLAIMS 1, 3-5, 7-8, 10-14, 16-25 OF THE ’983 PATENT ARE RENDERED OBVIOUS BY THE PRIOR ART**

49. I have been asked to provide an analysis as to whether the elements of Claims 1, 3-5, 7-8, 10-14, 16-25 of the ’983 Patent (the “**Challenged Claims**”) are disclosed in the primary prior art references: International Patent Application 97/18534 (“**Sim**”) (EX1005) and U.S. Patent No. 5,978,770 to Waytena (“**Waytena**”) (EX1007). I was also asked to consider these references in view of certain additional prior art for some of the limitations of the Challenged Claims, including U.S. Patent No. 6,938,066 to Doi (“**Doi**”) (EX1006) and U.S. Patent No. 5,758,257 to Herz (“**Herz**”).

50. My analysis of these prior art references relative to the elements of the Challenged Claims—specifically, how and where the prior art references disclose the limitations of the challenged claims—is provided below. The citations that I have included are not intended to provide an exhaustive list, but rather provide examples of how the references disclose or teach the elements of these claims.

##### **A. Ground 1: Sim in View of Doi**

51. I have reviewed Sim. Sim was filed on November 15, 1996, and published on May 22, 1997. I understand Sim is prior art under at least pre-AIA 35 U.S.C. §102(b).

52. My review of the '983 Patent file history shows that Sim was not considered during prosecution of the '983 Patent.

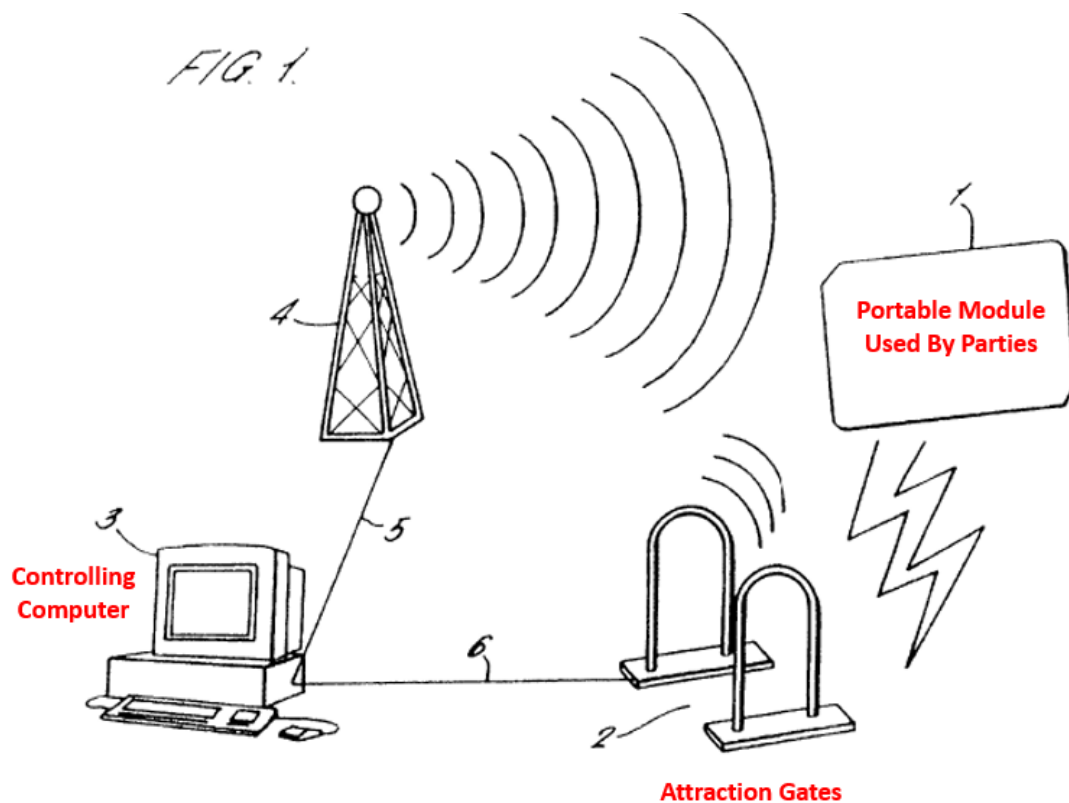
### **1. Independent Claim 1**

53. As viewed by a POSITA, Sim in view of Doi renders obvious claim 1.

**1[pre]: *A system for providing an itinerary to a party, said itinerary comprising a second set of attractions selected from a first set of attractions, said system comprising:***

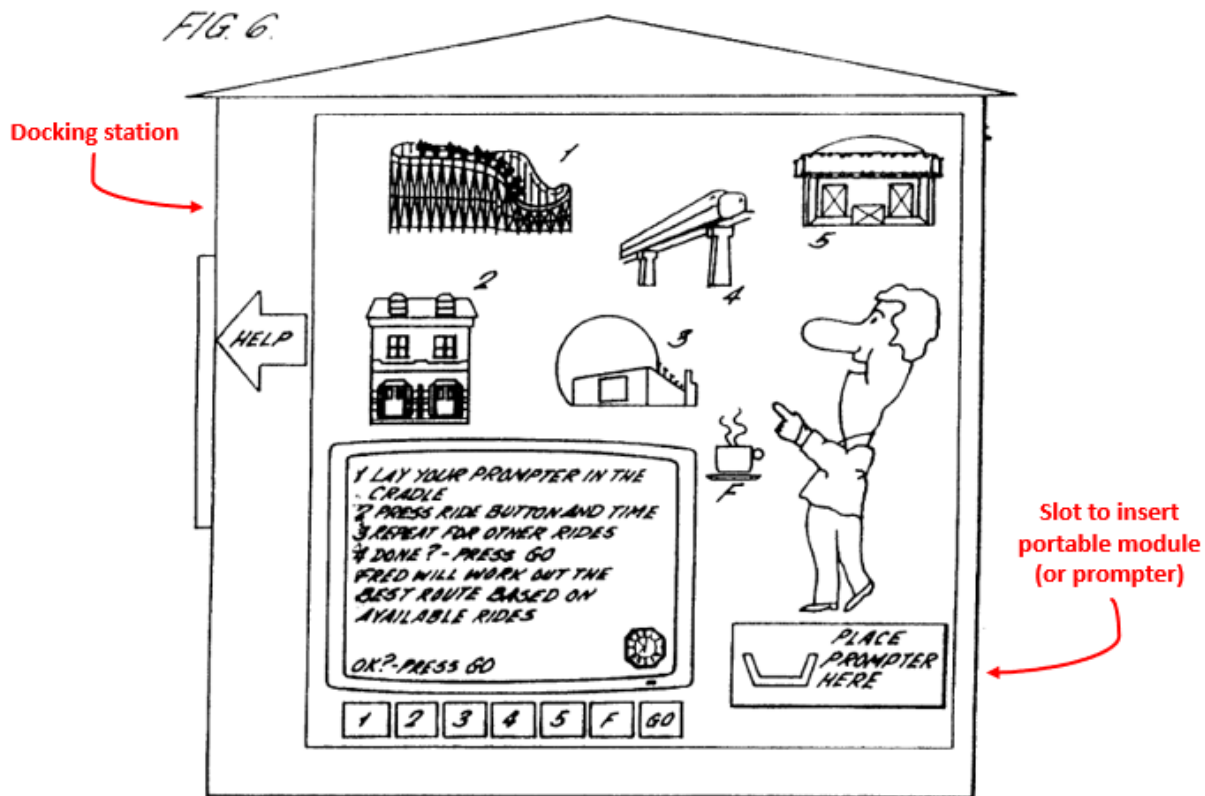
54. Sim discloses claim 1[pre] to the extent the preamble limits the scope of the claim.

55. *First*, Sim discloses a “system” that provides an “itinerary” to a party. An itinerary is comprised of recommended attractions and times at which the party is recommended to visit those attractions. ('983, 7:31-55, 14:4-6.) Sim relates to a “queue management system” that can be “employed in theme parks” for “guests.” (Sim, 3:16-27, Fig. 2.) The system includes (a) “portable modules” to be “carried by a person or group of people” and (b) a “controlling computer” that can “determine[] the optimum sequence and time of” attractions for an individual or a group of people:



(*Id.*, Fig. 1 (annotated), 2:5-20, 15:23-16:5.) Sim also discloses that in a theme park, the attractions could include a wide range of ride, show, and restaurant reservation “options.” (*Id.*, Fig. 2, Table 2, 28:10-18, 37:5-6.)

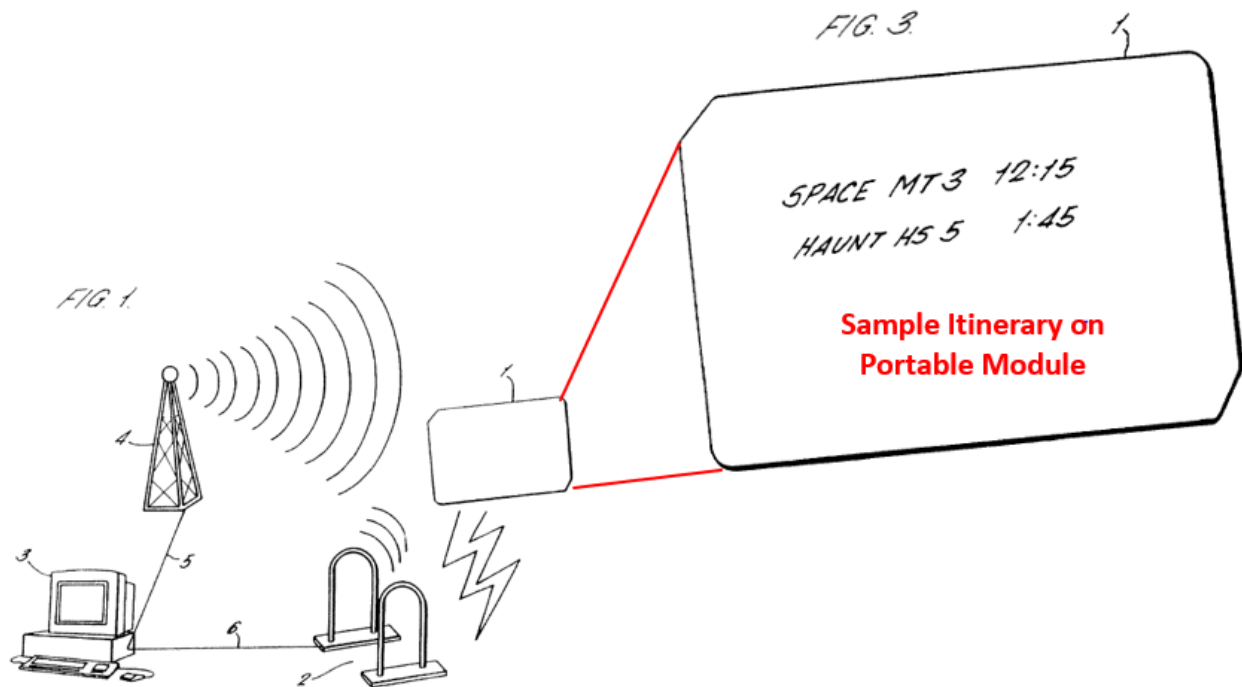
56. In Sim, “[a]s people enter the theme park via the entrance, they can go to the information kiosk 9, take a portable module 1 from a rack and insert it into a docking station 8.” (*Id.*, 15:18-22, Fig. 2.) Users can then provide “relevant information” about themselves, along with their “*preferred* times and *preferred* sequence of rides”:



(*Id.*, Fig. 6 (annotated), 22:32-23:21, 15:29-34; *see also* 8:14-27.) It is important to note that the preferred times and preferred sequence of rides are the times and sequence of rides users *wish* to have, but not necessarily the times and sequence of rides that users eventually are assigned to. (*See e.g., id.*, 7:15-26, 8:22-9:9, 15:24-16:3, 18:11-20, 23:32-24:22.) For example, Sim further discloses that “*actual* time and sequence of attendance at queue entrances” will be calculated and offered to the user “in response to user preferences, on the overall demand in the system and any priority attached to the particular user.” (*Id.*, 34:22-28.) Sim also discloses that “[t]he controlling computer 3 can be programmed to re-allocate every user’s sequence,” such as when certain rides are to be closed down, or to guarantee every

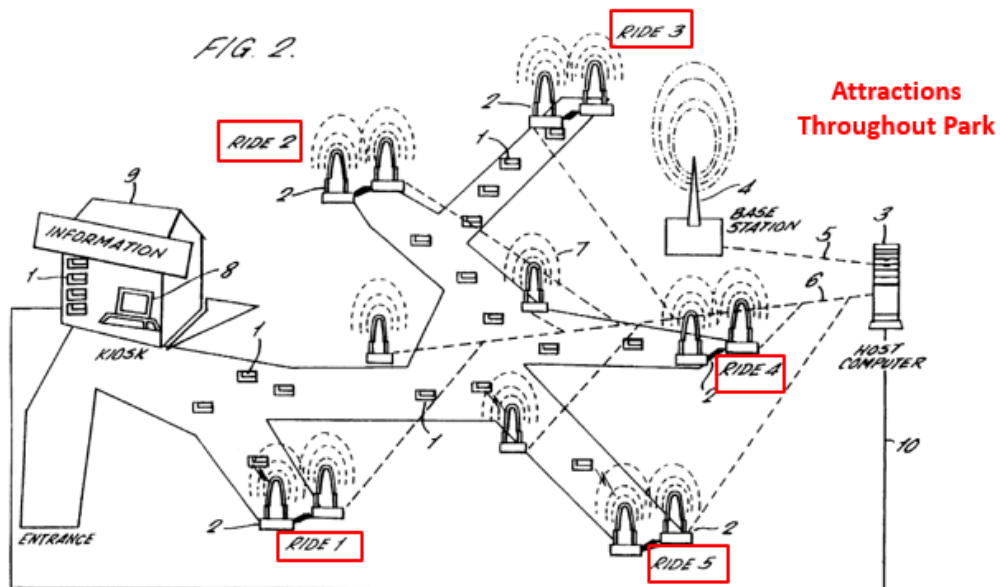
user get a minimum number of rides, or when ride failure occurs. (*Id.*, 23:32-24:22.) Thus, a POSITA would understand that the sequence and times of the rides determined by the controlling computer may or may not be the same as the preferred times and preferred sequence of rides selected by the users.

57. Following this, Sim discloses that its controlling computer includes a “controlling software program,” called a “Queue Manager,” that “determine[s] the optimum queue sequence” and “recommended route” based at least in part on the “relevant information.” (*Id.*, 34:15-35:30, 18:29-19:25, 22:4-24:22, 8:28-9:9.) The calculated “guest’s itinerary” is then provided to the portable module, which can display the itinerary “visually” or “audibl[y]” to the user:



(*Id.*, Figs. 1, 3 (annotated), 35:21-30, 9:4-9, 3:28-35; *see also* Fig. 5, 15:34-16:9.)

58. *Second*, the “itinerary” in Sim comprises “a second set of attractions selected from a first set of attractions.” The Sim system tracks information on rides throughout the park (“first set of attractions”), including both open and closed rides. (Sim, 39:1-8, 23:32-24:22, Table 2.) For example, Sim discloses that the system will re-allocate every user’s sequence when “[t]he theme park is lightly loaded and certain rides are to be closed down,” or “[i]f ride failure occurs.” (*Id.*, 24:5-22.) To be able to make the reallocation, the Sim system must closely track the status of each ride, such as demand for each ride and whether the ride is in good condition. Tracking information on rides could be achieved, among other things, via the gate units that “are located at each ride” and locator units 7 that “are distributed throughout the theme park.” (*Id.*, 28:10-21.) Further, Sim discloses that its system allows users to choose among the attractions in the park:



(*Id.*, Fig. 2 (annotated), 28:10-18 (discussing “gate units 2” used in system being “located at each ride”), Table 2 (depicting a list of rides and restaurants), 37:5-6, 9:30-34.) For example, Sim discloses that a person or a group of people can “select a preferred sequence of queues to be joined and preferred times of joining the queues” via the docking station 9 inside the theme park or remotely. (*Id.*, 7:15-8:27, 15:23-24.) Sim further discloses that “*the queue (or rides) which the user has registered for* will be sent to the controlling computer 3 together with the preferred times and preferred sequence of rides to enable the controlling computer to determine the optimum sequence and time of rides.” (*Id.*, 15:29-34.)

59. After a user provides her “relevant information,” including her preferred “single ride or... multiple rides,” Sim provides an itinerary with the “optimum sequence and time” of such ride(s) (“second set of attractions”), such as shown in Figure 3 above. (*Id.*, 17:22-27, 15:23-16:5, Fig. 3 (depicting an itinerary of two rides), 22:4-24:22.) Specifically, “actual time and sequence of attendance at queue entrances” is calculated “in response to user preferences, on the overall demand in the system and any priority attached to the particular user,” which is “effectively, a recommended route” or an “itinerary.” (*Id.*, 34:15-32, 35:15-30.) The rides that are included in the recommended route or itinerary are the second set of attractions selected from the first set of attractions, i.e., rides selected from all the rides throughout the theme park. Sim further discloses that its system can

provide additional “itineraries,” and thus another set of rides from the “first set of attractions,” to “cope with unexpected events,” such as ride closures or failures. (*Id.*, 23:32-24:22, 35:21-30) Sim also discloses that the itinerary can be amended as “the system further comprises a plurality of automatic registration gates 99” that allows guests to “amend[] a registration itinerary” by “simply passing through” them. (*Id.*, 28:28-29:4) *See also infra* claim 1[c].

**1[a]: data regarding said first set of attractions;**

60. Sim’s system includes “data” on the “first set of attractions.” As discussed above, Sim discloses a first set of attractions being rides throughout the theme park, and thus, data on the first set of attractions is information associated with those rides that can be used for queue management. Sim’s “controlling computer” and “Queue Manager” use “a simple but fast customizable flat database from which records are selected and processed...” (Sim, 34:15-21.) For example, Sim discloses that the system stores ride access eligibility data about each attraction, and that “when only certain members of a group are eligible for a *particular ride* because of *age, size of [sic] health restrictions*,” the system will restrict access to “*eligible members* of the party” that are “allowed access” based on the ride access eligibility data. (Sim, 22:29-23:3, 23:8-21, 34:2-11.)

61. As an additional example, Sim discloses that its system tracks whether rides are *open or closed*, such as when “certain rides are to be closed down”

because the park is “lightly loaded” and where a “ride failure occurs.” (*Id.*, 39:1-8, 23:32-24:22, Table 2.) Sim teaches that, in such situations, its system can produce an itinerary that will not include the “closed” ride(s). (*Id.*, 35:21-30, 23:29-24:22, 39:1-9.) Sim’s system can also include data on demand for attractions in the park so as to adjust the “timing and route planned by the computer” to reflect how busy the rides at the park are. (*Id.*, 38:27-32.) For example, Sim’s system collects guests’ “preferred sequence of queues to be joined and preferred times of joining the queue.” (*Id.*, 8:22-27.) Sim also discloses that the controlling computer 3 stores the information on how many guests are queuing for each attraction. (*Id.*, 19:4-5 (“list of prompters queuing for each feature”).) As another example, Sim discloses that the controlling computer 3 stores a range of identification codes corresponding to guests who should be permitted access to the attraction. (*Id.*, 20:7-15.) Sim’s system thus includes data on whether rides are busy, open, or closed.

62. Sim further discloses that its system can use various other data associated with attractions in the park, including:

- which rides (or queues) require separate tickets or additional fees (*id.*, 35:31-36:5, 38:11-15, 12:35-13:28);
- ride names (*id.*, Figs. 3, 5, Table 2);
- information on the queue for each ride (*id.*, 8:28-9:9);
- images of rides (*id.*, Fig. 6); and

- which “gate units”<sup>2</sup> are associated with which rides (*id.*, 19:24-25, 19:28-20:22).

**1[b]: information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;**

63. Sim discloses claim 1[b]. Sim discloses that “[t]he park visitor or user would use terminals installed at park entry points and at information kiosks throughout the park to enter *ride and time preferences*” and that “the system would request *other relevant information* such as height or health status, which may be relevant in allowing access to certain rides and information such as the need for a stroller or wheelchair.” (Sim, 22:29-23:3.) Sim further discloses that the “controlling computer 3 can store information in a database on each user and each member of a group, e.g. prompter serial number, relationship to other prompters or on tags, arrival time, preferred language, attract preferences, time preferences, calculated optimum route, the number in the group, attraction restriction information by individual user, other relevant information on the user.” (*Id.*, 23:8-21; *see also* 4:1-17, 11:5-28, 12:35-13:30 (discussing user credit data), 18:7-10

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<sup>2</sup> “gate units” are units at or near each ride that the “controlling computer” can communicate with and that allow or deny ride entry to users based on instructions from the controlling computer. (*Id.*, 14:31-15:7, 15:8:17, 19:28-20:22, 21:22-28, 28:10-18)

(discussing user-preferred language), 11:29-32, 38:25-26.) Sim also discloses that the queue manager “collects information about the guest’s location” such that a group member is able to locate other members of the group. (*Id.*, 35:21-30, 11:16-21, *see also* 4:15-17, 11:22-28, 30:10-17, 32:29-32, 37:25-38:7 (discussing user location data).) Such “information” on each user and member of a group is “information about said party.” The Sim system further allows for “different classes of guest depending on the fee paid,” such that users can pay premiums for a “range of privileges” which is additional “information” about users. (*Id.*, 3:23-27, 34:22-32, 37:3-4.)

64. Again, Sim teaches that this information associated with “each user” is stored in a “database” accessible by the “controlling computer.” (*Id.*, 23:8-21.) The “queue manager” can then “calculat[e]” a recommended time and sequence of rides (or itinerary) “[i]n response to user preferences,” “overall demand in the system,” “any priority attached to the particular user,” “information about the guest’s location,” and other data and information. (*Id.*, 34:22-32, 35:21-30, 36:9-16.) This results in, “effectively, a recommended route.” (*Id.*)

65. At least “a portion” of the party information distinguishes among the “first set of attractions with respect to said data.” That is, the party information can be used to “differentiate” some attractions from others, such as in terms some attractions within the first set of attractions are accessible to the user while others

are not or some attractions are preferred by the user but others are not. (*See* '983, 20:33-45.) For example, the Sim system can track information on “age, size of [sic] health restrictions” of rides. *See supra* ¶¶60-62 (Ground 1, claim 1[a]). When a user inputs “relevant information” about herself or the members of her group when registering, such as age or height (size), the system will limit access to “eligible members of the party.” (Sim, 34:3-11.) Thus, this information about the user (*e.g.*, age, height) differentiates among those rides that users are allowed to access (*e.g.*, based on ride age or height restrictions) and those that users are not allowed to access.

66. Further, the Sim system can display information about available attractions in a park and allows users to specify their ride and time “preferences” among these attractions. *See supra* ¶¶54-59 (Ground 1, claim 1[pre]). These preferences (“information about said party”) are also used to distinguish among the available rides in the park that a user is interested in versus those that the user is not interested in.<sup>3</sup> Additionally, information about the guest such as whether the

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<sup>3</sup> Additionally, this limitation is obvious over Sim in view of Doi. Like Sim, Doi relates to a “customer navigation system” for theme parks, and discloses obtaining customer information (*e.g.*, age) and using associated data on rides to determine which rides to recommend (*e.g.*, recommend rides based on specified age). *See infra*

guest has paid premiums for a “range of privileges” also distinguishes among “first set of attractions with respect to said data.” (Sim, 3:23-27, 34:22-32, 37:3-4.) For example, some attractions may be freely available to certain guests without waiting, but not so for other guests.

**1[c]: a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information;**

67. Sim renders obvious claim 1[c].

68. Sim discloses a “computer” that has access to attraction “data” and user “information.” *See supra* ¶¶54-59 (Ground 1, claim 1[pre]). Sim discloses a “controlling computer” with “Queue Manager” software that includes a “memory” and is “linked to” the portable modules and Sim system via “communication line[s].” *Id.* (Sim, 20:10-11, Fig. 1, 14:31-15:7.) The “controlling computer” uses party “information” and ride “data” to create an optimum queue sequence for certain attractions in the park. For example, Sim discloses:

The queue manager (QM) takes input from the park management about how it is to deal with certain circumstances, accepts ride preference requests from guests and collects information about the guest’s

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claim 1[c]. It would have been obvious to apply to these teachings of Doi to Sim for the reasons detailed below. *Id.*

location. This information is used to calculate and update a guest's itinerary. As guests are identified by module detectors the system will produce and sequence the messages for the particular module detector. These messages instruct guests to attend the various rides.

(Sim, 35:21-30; *see also* 34:22-32 (“The queue manager includes means of calculating the actual time and sequence of attendance at queue entrances offered to the user. This calculation can be in response to user preferences, on the overall demand in the system and any priority attached to the particular user and would result in effectively, a recommended route. This allows considerable control of the users.”).) Sim also discloses that the system will re-allocate every user's sequence when “[t]he theme park is lightly loaded and certain rides are to be closed down,” or “[i]f ride failure occurs.” (*Id.*, 23:32-24:22.) When re-allocating every user's sequence, the controlling computer will select different attractions than what the user chose, such as by adding or removing an attraction. As Sim explains, one of the advantages of its system is to “[have] the timing and route planned by the computer” based on “how busy the park is at that time”—“[i]n very busy times users would be led back to the exist area earlier, where as in quiet times users would be encouraged to spend more time ... on secondary attractions.” (*Id.*, 38:27-29.)

69. Thus, Sim's computer acquires information about park guests, including preferences for rides, ride times, and ride sequences, and compares that

to data about the rides, including locations and current crowding, and generates a “recommended” optimum sequence of rides and route (*e.g.*, an itinerary) to go from ride to ride. (Sim, 38:27-32 (discussing computer “plann[ing]” itinerary based on “how busy the park is...”).) Sim does this to achieve “maximum ride/show utilisation, ease park management issues, raise spending on secondary attractions and most importantly, greatly increase customer satisfaction.” (Sim, 22:4-12.)

70. Sim in view of Doi renders obvious Sim’s computer “selecting” attractions, such that for “at least some” of the selected attractions “[attraction] data substantially matches with [user] information.” I have reviewed Doi. Doi is titled “Customer Navigation System and Customer Navigation Method.” Doi was filed on November 21, 2000, and issued on August 30, 2005. I understand that Doi is prior art at least under pre-AIA 35 U.S.C. §102(e). My review of the ’983 Patent file history shows that Doi was not considered during prosecution of the ’983 Patent.

71. Doi is directed to a “customer navigation system” for theme parks. (Doi, Abstract.) Similar to Sim, Doi discloses (a) “a customer navigation terminal 1C” that is “to be carried by a customer” and (b) “service server 4A” that “transmits customer navigation information” to the customer terminal. (*Id.*, Fig. 10, 8:60-9:20, Fig. 1, 4:56-63.) The “customer navigation terminal” has a “voice output or image display,” memory with information on the customer (*e.g.*,

“nickname,” “height,” “age,” “positional information”), and can provide a navigation plan based on customer position and “crowd condition[s],” among other things. (*Id.*, 9:21-58, 4:64-5:29.) Doi discloses its system collects “use data” reflecting, for example, “use frequencies of attractions by customer ages” and “waiting times” of attractions by attraction type. (*Id.*, 8:20-56, Figs. 8-9.)

72. Doi further discloses that its navigation planner can apply this “use data” to “select” attractions for a customer based on information about the customer ***matching*** data about attractions. (*Id.*, 9:52-10:44; *see also* 6:43-64.) For the computer to select attractions for which attraction data matches party information, it means the selected attractions are ***desirable*** for the party’s preferences, needs and limitations. (’983, 5:16-36, 7:5-11, 8:21-32, 17:36-45, 24:22-27, Claims 4-7.) For example, Doi discloses “as an attraction A is crowded, the ***navigation*** planner 42 makes a plan to *recommend other attractions* to some of customer queuing at the attraction A that are *selected in consideration of their age*.” (Doi, 9:63-66.) Doi gives an example of selecting “Attraction D” based on its being “enjoyable” for similarly-aged persons. (*Id.*, 9:65-10:11.) Doi adds that its system can also “positively propagate held events.” (*Id.*, 10:12-33.) “[I]f, for example, a *popular attraction* ‘Pokekun’ to be held still has non-reserved seats, there are selected *matching ages* from ages of customer stored in use data memories 14, and invitations are given.” (*Id.*) Thus, in Doi, the computer can

recommend (and the customer can reserve) a queue for an attraction and a subsequent seat for a show based on data about attractions, including rides and shows, matching customer information, *e.g.*, desirable for the user's age.

73. It would have been obvious to apply these teachings of Doi to Sim to have Sim's system "select" attractions, with at least some of the selected attractions having data that "substantially matches with [party] information." Sim and Doi are both in the field of theme park navigation, both disclose using portable customer terminal and central computer, both disclose collecting party information, and both disclose use of a computer to process data and provide theme park recommendations to customers. Moreover, Sim already discloses collecting the same types of party information that Doi discloses collecting (*e.g.*, age, location) *and* discloses using this information when determining access to rides. For example, Sim discloses "[w]he only certain members of a group are eligible for a particular ride because of age, size of health restrictions," the system will only allow access to eligible members of the party. (Sim, 34:2-11.) Sam also discloses its system calculates "the actual time and sequence of attendance at queue entrances offered to the user" "in response to user preferences, ... the overall demand in the system and any priority attached to the particular user." (*Id.*, 34:22-32.) Doi simply adds that the system can further use this information to select attractions for a party where attraction data and party information matches. Adding

this to Sim's system would have been the use of a known technique to improve a similar device.

74. Moreover, a POSITA would have been motivated to combine the teachings of Doi and Sim for numerous reasons. Sim recognizes the importance of “greater control in crowd movement” and the need to “increase customer satisfaction,” and thus contemplates using its “system to concentrate the park users in certain areas at certain times.” (*Id.*, 39:1-8, 23:32-24:22, 22:4-24.) Sim also recognizes the need to direct users to “secondary attractions,” in order to maximize park use and customer spending. (*Id.*, 22:4-12.) Doi recognizes these *same problems* and provides similar solutions to achieve the *same results* as Sim, *e.g.*, reducing wait times, directing users to underutilized attractions, and maximizing ride numbers. (Doi, 9:33-10:44; *see also* 8:60-9:32, 3:9-14.) Doi teaches that this can be done by automatically selecting attractions and times for the party, based on matching party information and attraction data. (*Id.*)

75. A POSITA would have thus been motivated to apply Doi to Sim, such that Sim's system could select attractions and times that match party information, such as rides and shows popular with a party's age, when determining a “guest's itinerary.” This would enable the Sim system to, for example, take party information and, depending on crowds, select attractions for the party for their itinerary at the outset—thereby maximizing attraction utilization, controlling

crowding, offering parties sufficient rides for a complete day, and reducing the potential need to later re-allocate sequences, which could cause user frustration. And where re-allocation is necessary to “cope with unexpected events” such as ride closers causing a ride to be removed (Sim, 23:32-24:22), a POSITA would have looked to Doi—and its disclosure of selecting rides to users where the ride data matches attraction data, *e.g.*, based on age—so that users of Sim would be provided with alternatives for those rides that have been removed from the itineraries. Moreover, where a Sim user selects only one or two preferred rides (Sim, 17:22-27), which might not consume much of her day, the Sim system would now be able to provide additional itinerary options by selecting available rides that match with the user—again helping to achieve Sim’s goals of “crowd control,” increased spending on attractions, and avoiding rides being underutilized.

76. The system of Sim was also ready for improvement, and adding Doi’s teachings to it as discussed would yield predictable results. Sim’s system maintains “relevant information” on users (including “ride and time preferences”), along with data on park attractions, but does not explicitly disclose matching such information and data to provide specific options to users. Doi simply adds that the exact information that Sim has already collected can be matched to select attractions for the parties. Such matching when implemented in Sim would have functioned the same way as in Doi—the Sim system would predictably compare the party

information to ride/show data and determine what rides/shows and times to select. This would not change the ultimate output of the Sim system, which would continue to provide itineraries as before, but would provide parties with the added benefit of selecting matching attractions. Such selection would improve the system of Sim, assisting parties in navigating the wide range of ride, show, and restaurant reservation “options” offered in Sim. (Sim, Fig. 2, Table 2, 28:10-18, 37:5-6.)

**1[d]: a presentation means in communication with said computer, said presentation means able to receive said itinerary from said computer and present said itinerary to said party,**

77. Sim discloses claim 1[d]. Sim discloses that its system includes portable modules used by customers. *See supra* ¶¶54-59 (Ground 1, claim 1[pre]). These modules include a “microprocessor 40” and “display 30” (“presentation means”). (Sim, Fig. 4, 17:3-15.) Sim discloses that, using this display, “[t]he portable unit is able to display the ride sequence and times. The display can conveniently be an alphanumeric display. A simplified prompter can be provided without such an alphanumeric display with a simpler ride indication arrangement for applications which do not require readable messages.” (Sim, 17:16-21; *see also* 3:32-35, 15:34-16:9, Fig. 3, Fig. 5, 9:10-10:3.) Sim further discloses that the “queue manager 5 has determined the optimum queue sequence, it *transmits data on the queue sequence and times* at which the queue should joined to the portable modules and *this data is stored* in the memory means of each portable module for

*display.*” (*Id.*, 9:4-9; *see also* 18:16-20, 3:28-31, 9:10-10:3.) Thus, the portable module, with its display, is in “communication with” the “controlling computer.” *See supra* ¶¶54-59 (Ground 1, claim 1[pre]).

**1[e]: whereby said itinerary is customized for said party.**

78. Sim discloses claim 1[e]. *See also supra* ¶¶54-59, 63-76 (Ground 1, claims 1[pre], 1[b]-1[c]). As discussed, with Sim users provide “relevant information” about themselves, including their “preferred times and preferred sequence of rides,” “height or health status,” “the number in the group,” “attraction restriction information by individual user,” “relevant disability,” “baby being carried,” “stroller present,” “optional service activated,” and “credit available.” (Sim, 11:16-55, 8:5-9, 22:25-23:21, Fig. 6.) Sim teaches that “[t]his information is used to calculate and update a *guest’s itinerary*.” (*Id.*, 35:21-30.) This itinerary includes the “actual time and sequence of attendance at queue entrances offered to *the user*” and would “result in effectively, a recommended route.” (*Id.*, 34:22-32.) Thus, the “itinerary” is customized for users as users’ personal information is taken into consideration. Moreover, the system of Sim, as modified by Doi, results in itineraries “customized” for a party, as the attractions and times are selected based on those attractions matching the party’s information and thus are likely enjoyable for members of that party. *See supra* ¶¶67-76 (Ground 1, claim 1[c]).

## 2. Independent Claim 3

79. Claims 3[pre]-3[e] are nearly identical to claims 1[pre]-1[e]. *See* Appendix A. Therefore, claims 3[pre]-3[e] are rendered obvious over Sim in view of Doi for the same reasons as described above. *See supra* ¶¶54-78 (Ground 1, claims 1[pre]-1[e]).

## 3. Dependent Claim 5

*The method of claim 3 wherein said information comprises an attribute of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said attribute, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.*

80. As viewed by a POSITA, Sim in view of Doi renders claim 5 obvious. Sim discloses that party information can comprise numerous “attributes,” including “height or health status,” “the need for a stroller or wheelchair,” “the number in the group,” and “age.” (Sim, 22:29-23-3, 23:8-21, 34:2-11.) *See also supra* ¶¶63-66 (Ground 1, claim 1[b]).

81. Regarding this party information and attraction data distinguishing which attractions are “more desirable,” and attractions being selected from this group, Sim in view of Doi renders this obvious. Claim 5 is similar to claim 1, in that it relates to using party “information” and attraction “data” to indicate which rides are of interest and select those rides. Claim 5 merely adds a type of party “information” to use—namely, an “attribute”—a type already discussed above for

claim 1. Claim 5 is thus obvious for the reasons set forth above. *See supra* ¶¶67-76 (Ground 1, claim 1[c]).

82. For example, Sim’s party information comprises numerous “attributes,” including “height or health status,” “need for a stroller or wheelchair,” “number in the group,” and “age.” (Sim, 22:29-23:3, 23:8-21, 34:2-11.) *See also supra* ¶¶63-66 (Ground 1, claim 1[b]). Doi adds that its navigation planner can “select” attractions to a customer by comparing customer attributes, like “age,” with attraction data. (Doi, 9:52-10:44.) In fact, Doi teaches that it collects “use data” on attractions based on party age and attraction type, and from this determines which attractions are popular, or more desirable, based on such attributes. (*Id.*, 8:20-56, Figs. 8-9.) Doi teaches that “as an attraction A is crowded, the navigation planner 42 makes a plan to select other attractions for some of customer queuing at the attraction A that are *selected in consideration of their age.*” (*Id.*, 9:63-10:11; *see also* 10:12-33 (selecting show based on “matching ages”)) Thus, in Doi, the computer can use the same party “attribute” information as disclosed in Sim (*e.g.*, age), along with attraction data (*e.g.*, age interest data), to select attractions (*e.g.*, a ride and a subsequent show) that are “more desirable” to the party (*e.g.*, based on “matching ages”). In other words, the age interest data of attractions distinguishes a portion of attractions as being more desirable with respect to the user age, and the attraction from this portion is selected for the user.

83. It would have been obvious to apply these teachings of Doi to Sim, such that Sim’s party attributes and attraction data distinguish which attractions are “more desirable” (*e.g.*, based on age) and the “controlling computer” selects those attractions. *See supra* ¶¶67-76 (Ground 1, claim 1[c]). A POSITA would have looked to Doi—and its disclosure of distinguishing rides based on party attributes, like age, and selecting those rides that are, for example, age appropriate based on the party’s age—so that users of Sim could receive ride selection based on their attributes, like age. Adding this to Sim’s system would have been the use of a known technique to improve a similar device. Sim already discloses collecting and using the types of party information Doi discloses collecting (*e.g.*, age, location), and Doi simply adds that this information, like the user “attribute” of age, can be used to select popular attractions and times for a user.

84. Moreover, the use of party attributes, like age, to distinguish among and select attractions when implemented in Sim would have functioned in the way as in Doi—the Sim system would predictably compare the party attribute to ride data and determine what rides to select. This would not change the ultimate output of the Sim system, which would continue to provide itineraries as before, but would provide users with the added benefit of selecting attractions they may enjoy while increasing attendance at underutilized attractions.

#### 4. Dependent Claim 7

*The method of claim 3 wherein said information comprises a privilege of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said privilege, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.*

85. As viewed by a POSITA, Sim in view of Doi renders claim 7 obvious. Sim discloses that party information can include “privileges” associated with a user. For example, Sim’s system allows for “different classes of guests depending on the fee paid,” with users paying different premiums for “a range of *privileges*.” (Sim, 3:23-27, 37:3-4.) Sim further discloses that its system takes into account “any priority attached to the particular user” when determining the “actual” queues “offered to the user.” (*Id.*, 34:22-32.) Sim adds that certain guests may have privileges associated with them based on, for example, the time of day they arrive in the park. (*Id.*, 24:5-20 (disclosing that users who arrive later may be given priority over users who arrived in the morning).) Thus, a POSITA would understand that in Sim certain users have a “privilege” associated with them that can give them priority over other users, when it comes to having certain attractions included in their sequence of queues. Where, for example, an attraction is more popular and thus desirable to all users, a POSITA would recognize that Sim teaches that users with privilege should be given priority for selection of such attractions. Similarly, where certain attractions require a user to pay extra fees to

attend, a POSITA would recognize that Sim's system would associate those rides with users who paid the required fees, while not providing them in itineraries of users who did not pay the required fees.

86. Given that, in Sim, the user's "privilege" is already part of the party information in the system, it would have been obvious over Sim in view of Doi to select rides for the itinerary that match with a user having a particular privilege or paid class status. Doi discloses selecting attractions where party information indicates the attractions are desirable, such as selecting a show that is popular with young children based on this matching the age of the user. *See supra* ¶¶67-76 (Ground 1, claim 1[c]). It would be obvious to a POSITA, given the teachings of Sim and Doi, that the same selection of attractions could be made based on whether a user has a particular class status, priority, or privilege attached to them as taught by Sim. This would have been nothing more than providing the same selection of an attraction as disclosed in Doi, but with the selection being based on the user having a paid fee to be a higher "class" of guest, or having a certain privilege or priority attached to them as disclosed in Sim. This would have been nothing more than the simple substitution of one known factor (age) for another (privilege or "class" of user) that is taken into account when selecting attractions for the itinerary of a particular user.

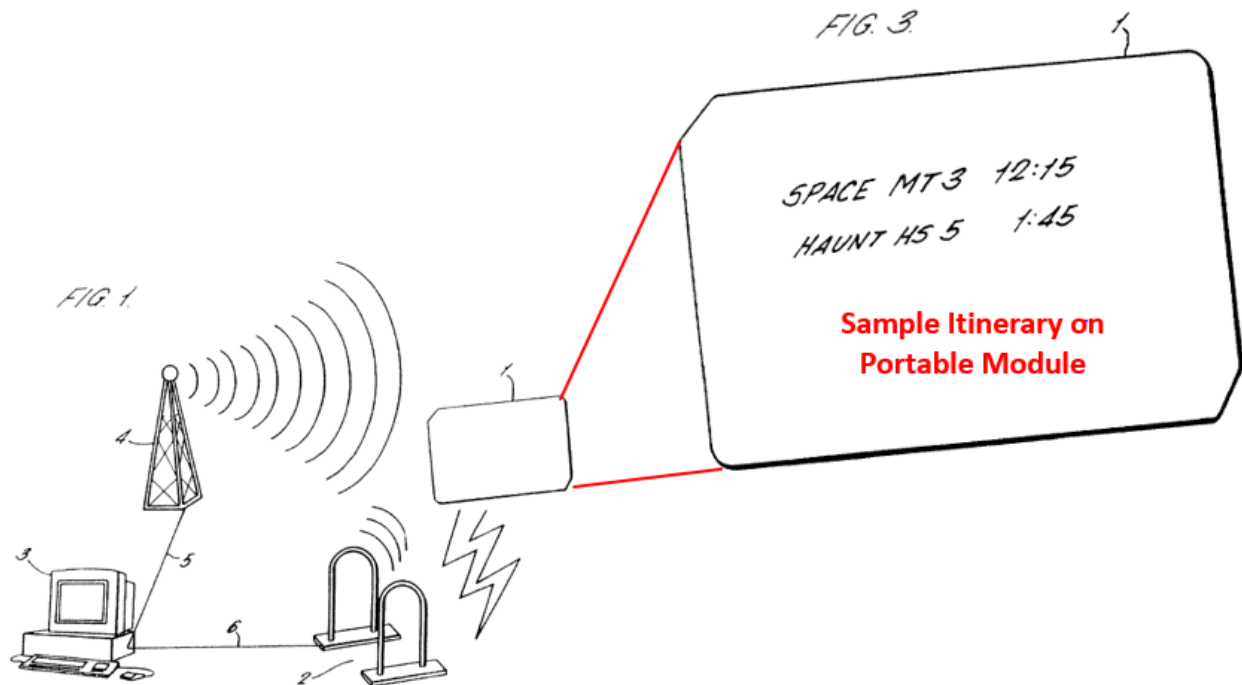
87. A POSITA would have been motivated to modify Sim to include selecting certain attractions for users who paid a fee to be in a higher “class” of user, such that they had a privilege or priority attached to them. Users paying such higher fees would expect something in return—most naturally prioritized access to the most popular or limited attractions. A POSITA would have had a reasonable expectation of success, as just like the recommended itinerary offering rides that match with a user’s age (as taught by Doi), the system of Sim could further offer the same itineraries for more popular rides, or rides with limited availability or that require the payment of an extra fee to attend, by first checking whether a user has a privilege or priority attached to their party information. This would, again, accomplish Sim’s goal of increasing customer satisfaction.

## **5. Dependent Claim 8**

*The method of claim 3 wherein [1] said data further comprises a scheduled time corresponding to a first attraction of said second set of attractions, [2] wherein in step d) said software adds said scheduled time in association with said first attraction to said itinerary, and [3] wherein step f) further includes presenting said scheduled time in association with said first attraction.*

88. As viewed by a POSITA, Sim in view of Doi renders obvious claim 8. Sim discloses that the “queue manager includes means of calculating the *actual time and sequence* of attendance at queues offered to the user,” and that “[o]nce the queue manager has determined the optimum queue sequence, it transmits data on the *queue sequence and times* at which the queue should be joined to the portable

modules and this data is stored in the memory means of each portable module *for display.*” (Sim, 34:22:-32, 9:4-9; *see also* 8:28-4, 15:23-16:9, 17:16-17, claims 1, 22.) If a user does not enter the queue at the appropriate scheduled time for each attraction (“the user has arrived either before or after the time”), then the system will deny her access. (*Id.*, 20:5-22; *see also* Fig. 7, 21:29-22:3.) Sim provides an example itinerary displayed on a user’s portable module in Figure 3, showing “Space Mt” (e.g., “first attraction”) at a “scheduled time” of 12:15 and a “second attraction” (“Haunt Hs”) at a “second scheduled time” of 1:45:



(Sim, Figs. 1, 3 (annotated), 15:23-16:9.)

## 6. Dependent Claim 10

*The method of claim 3 wherein [1] in step d) said software further adds to said itinerary a first scheduled time corresponding to a first attraction of said second set of attractions, and [2] adds a second scheduled time corresponding to a second attraction of said second set of attractions, [3] said first scheduled time and said second scheduled time being selected so that said second scheduled time is at least equal to said first scheduled time plus a time required between attractions, whereby said second attraction is scheduled to follow said first attraction.*

89. As viewed by a POSITA, Sim in view of Doi renders claim 10 obvious. Sim's system adds "scheduled times" for all attractions a party is offered, including a "first attraction" (e.g., "Space Mt") and "second attraction" (e.g., "Haunt Hs.") *See supra* ¶88 (Ground 1, claim 8). Further, Sim specifically notes that its system takes into account that users must "physically be able to get from one ride to another in time." (*Id.*, 24:7-11.) Sim system thus accounts for the time needed to get from one ride to another when generating the user's sequence of queues.

90. A POSITA would have known from Sim for the "second scheduled time" (e.g., 1:45 for Haunt Hs) to be equal to the "first scheduled time" (e.g., 12:15 for Space Mt) plus a "time required between attractions." Sim is directed to providing a user with an itinerary of recommended sequence of rides and ride times. *See supra* ¶¶53-78 (Ground 1, claim 1). If the times for each attraction did not take into account the time required to navigate between attractions—and for example the second attraction was scheduled at such a time that the user did not

have enough time to navigate from the first attraction to the second attraction to make her scheduled queue time—then the Sim system would not work. Indeed, Sim discloses that in re-allocating user's sequence “when the theme park is lightly loaded and certain rides are to be closed down,” users’ ability “to ***get from one ride to another in time***” is taken into consideration. (*Id.*, 24:5-11) Moreover, Sim takes in various party information, including group size and guest location, and uses this to “calculate” an itinerary. (Sim, 23:8-21, 35:21-30, 19:4-10, 34:22-32.) A POSITA would have known that such itinerary must include sufficient time to navigate in between each attraction to, as taught by Sim, “greatly increase customer satisfaction.” (*Id.*, 22:4-12.)

## 7. Dependent Claim 11

***The method of claim 3, [1] wherein said information comprises a third set of attractions previously selected for said party, said third set consisting of an already visited portion and a remaining portion, [2] wherein said party forgoes said remaining portion due to an interruption, [3] wherein in step d) said software selects said second set of attractions as a replacement for said remaining portion, and wherein said second set of attractions substantially excludes said already visited portion, whereby said interruption is overcome.***

91. As viewed by a POSITA, Sim in view of Doi renders claim 11 obvious. Claim 11 is similar to claim 1, but now specifies that the set of attractions is selected as an adjustment to a previous itinerary (“third set of attractions”) when there has been an “interruption.” The ’983 Patent contemplates “***unscheduled inoperation***” of an attraction or any other distraction that derails the party as

“interruption” (’983 Patent, 9:27-49.) When there is an interruption, the ’983 Patent simply uses the same method to create a new itinerary, “but [] place in the lowest ranking all attractions which had already been visited.” (*Id.*) Doi contemplates “interruptions,” including where rides have an “abnormally long wait times” due to being overcrowded. (Doi, 8:20-45, 9:36-10:11.) Doi discloses that in such situations, it will select replacement rides that match party information, like age, so as “to take a measure for the waiting time to be shorter.” (*Id.*) For example, where an “attraction A” becomes too “crowded,” as a replacement Doi’s system will select a less crowded ride, “attraction D,” that matches the user’s information, such as her age. (*Id.*) Thus, in Doi, the party will forego attraction (A) and instead use the newly-selected, recommended ride (D) as a “replacement.”

92. It would have been obvious to apply this teaching to Sim, such that Sim’s “software selects said second set of attractions as a **replacement** for said remaining portion, and wherein said second set of attractions substantially excludes said already visited portion, whereby said interruption is overcome.” In Sim, a user can be issued an itinerary (“third set of attractions”), and as she proceeds through her day, some attractions will have been visited and some will remain. (Sim, 23:8-21.) Like Doi, Sim discloses that “unexpected events” (“interruptions”) can occur during the day, such as rides closing due to the park being “lightly loaded” or “ride failure” (i.e., “unscheduled inoperation”) (*Id.*, 23:32-24:22.) When this occurs,

Sim's "controlling computer 3 can be programmed to re-allocate every user's sequence"—for example, removing the closed ride(s) and selecting new ride sequences and times for the remaining rides to overcome the "interruption." (*Id.*, 23:32-24:22, 35:21-30.) Sim also discloses that in addition to docking station 8 which allows guests to select queues they wish to join, its system "further comprises a plurality of automatic registration gates 99." (Sim, 28:22-24, 7:15-30.) The automatic registration gates 99 which are "located close to the corresponding ride" allow guests to register for rides by simply passing through them, such that guests can easily "register for an additional ride on the same attraction" or "amend[] a registration itinerary." (*Id.*, 28:28-29:12.) Thus, Sim contemplates guests be derailed by other distractions as guests can easily register for attractions/rides that are not originally planned/scheduled through the automatic registration gates 99 or spending more time at one attraction than expected. Additional rides on the same attraction or derailment by other distractions are also interruptions that can cause guests to forego the remaining portion of the original itinerary.

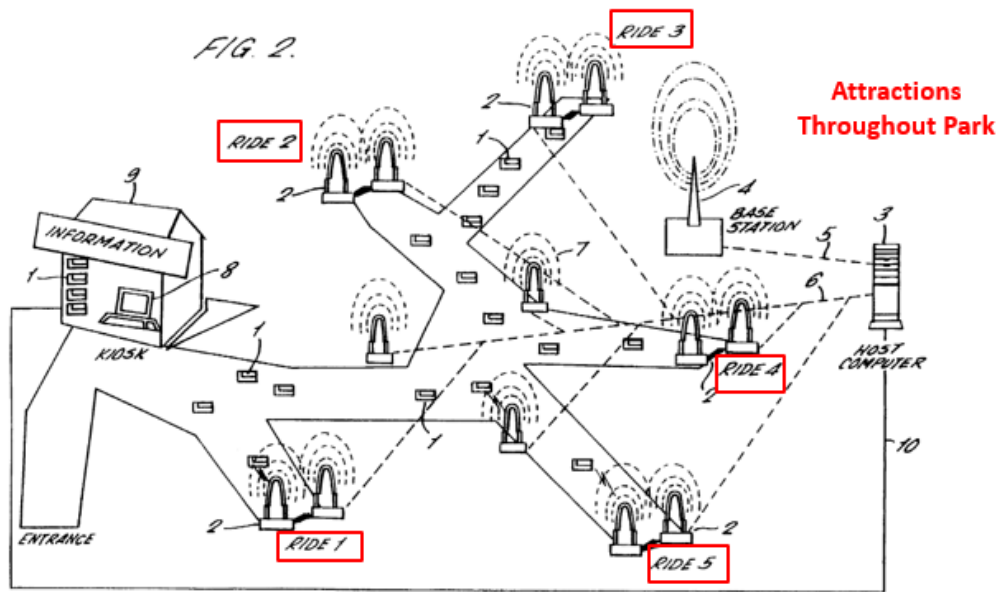
93. A POSITA would have been motivated to include another set of recommended replacement attractions, as taught by Doi, in Sim's "re-allocated" or "amended" itinerary to make up for those attractions the user had to miss because of the interruption, while excluding those already visited. The "re-allocated" or

“amended” itinerary provided in Sim excludes previously-selected rides for which there has been an “interruption” and thus may result in a shortened itinerary for the user. Sim was thus ready for improvement, and it would have been a simple application of a known method to, as taught by Doi, select “alternative rides” for the user’s “re-allocated” or “amended” itinerary in Sim. Such would continue to result in the user receiving a “re-allocated” or “amended” itinerary—only now that itinerary would predictably include additional rides as a replacement. Further, this would help address Sim’s stated goals of “maximum ride/show utilisation,” “spending on secondary attractions,” and “greatly increas[ing] customer satisfaction.” (*Id.*) *See also supra* ¶¶67-76 (Ground 1, claim 1[c]) (discussing rationale for applying Doi to Sim).

## **8. Dependent Claim 12**

***The method of claim 3, wherein said first set of attractions comprises a plurality of attractions selected from the group consisting of ride, show, movie, theater, restaurant, exhibit, display, presentation, store, tour, parade, museum, room, area, fountain, restroom, hiking trail, picnic site, autograph session, historic recreation, beach, viewpoint, photo opportunity, lookout, fireworks display, attraction within a district, attraction within a city, attraction within a region, attraction within a state, and attraction within a country.***

94. Sim in view of Doi renders claim 12 obvious. Sim discloses that the “first set of attractions” can include “various rides” in a “park”:

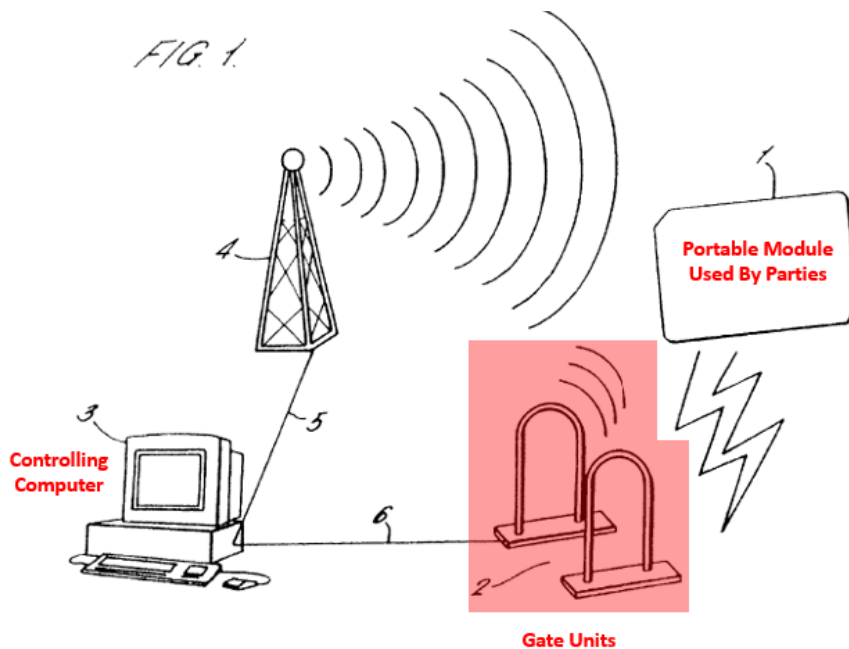


(*Id.*, Fig. 2 (annotated), 15:8-22; *see also* Table 2 (listing rides), 39:1-8, 23:32-24:22.) Sim further discloses that the “first set of attractions” can include a “show and/or restaurant.” (*Id.*, 37:5-6, Table 2 (listing restaurants), 22:5.)

## 9. Dependent Claim 13

*The method of claim 3 further comprising the steps of: g) providing an access control system to a first attraction of said second set of attractions; and, h) admitting said party to said first attraction with said access control system, said access control system operating in response to at least a portion of said itinerary corresponding to said first attraction.*

95. Sim in view of Doi renders claim 13 obvious. Sim discloses that its system can include “gate units” in communication with the “controlling computer 3” and the “portable modules 1”:



(Sim, Fig. 1 (annotated), 14:31-15:7.) The gate units are “positioned at various rides in the park,” are “set up at the entrance to the physical queue to *control access* to the queue,” and include “circuitry to at least passively listen for the transmitted identification codes and preferably include circuitry to transmit the prompting signal.” (*Id.*, 15:8-15:17, Fig. 2, 19:28-33.)

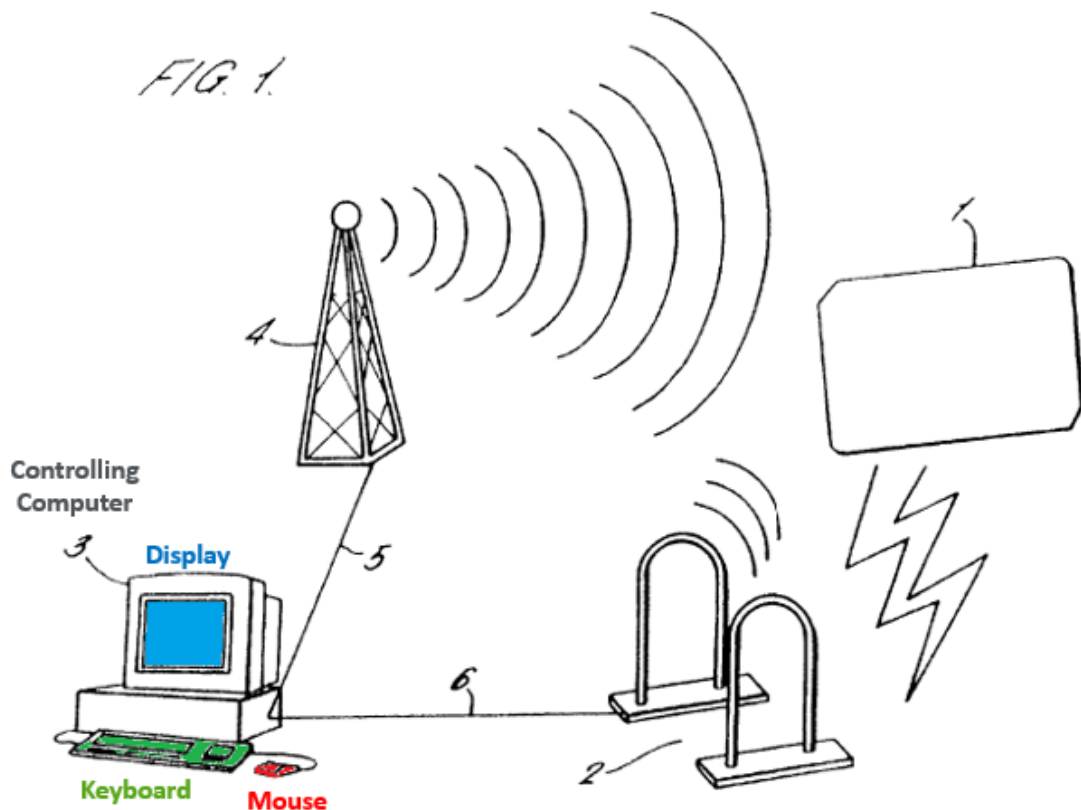
96. When a “gate unit 2 detects an identification code,” it transmits it to the controlling computer for confirmation as to whether the user should be allowed access. (*Id.*, 20:7-22.) The controlling computer responds with a signal instructing the gate unit to grant or deny access. (*Id.*) Sim teaches granting access when a user is within a “default acceptance time window” of her scheduled ride, “e.g., +5 mins, -10 mins.” (*Id.*, 10:30-11:4, 11:35-12:2, claim 31.) Access will be denied if “the user has arrived before or after the time, is at the wrong ride or the user is at the

wrong ride and at the wrong time.” (*Id.*, 20:19-22; *see also* 10:4-29, Fig. 8, 21:22-28, Fig. 7, 21:29-22:3, Fig. 10, 28:10-18.)

## 10. Dependent Claim 14

***The method of claim 3 wherein said computer comprises at least a first member selected from the group consisting of a portable computer, a handheld computer, a kiosk computer, a general purpose computer, and a desktop computer.***

97. Sim in view of Doi renders claim 14 obvious. Sim discloses that its system includes a “controlling computer” in communication with the gate units and portable modules. (*Id.*, Fig. 1, 14:31-15:7.) Sim teaches that this computer can include a display, keyboard, and mouse:



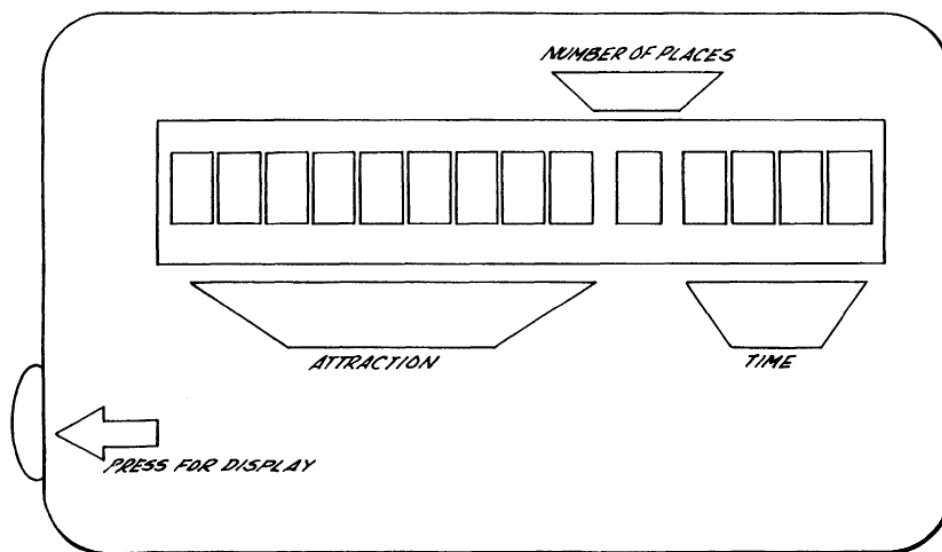
(*Id.*, Fig. 1 (annotated), 1:40-55, 8:5-13.) Thus, the “controlling computer” can be at least a “general purpose computer” and a “desktop computer.”

## 11. Dependent Claim 16

***The method of claim 3 wherein said presentation means comprises a display selected from the group consisting of a screen, a touchscreen, and a scrolling display.***

98. Sim in view of Doi renders claim 16 obvious. Sim discloses that each “portable module” can “conveniently” include “an alphanumeric display.” (Sim, 17:16-18, Fig. 4.) This display is able to “display the ride sequence and times,” among other things. (*Id.*) Thus, the display includes a screen for users to view their sequence of rides. (Sim, Fig. 3, Fig. 5, 15:34-16:9.) Sim further discloses that its display can be a “scrolling display,” explaining that Figure 5, shown below, “illustrates an alternative display arrangement which allows for the *display to scroll across* to indicate the ride or attraction, the number of places reserved in the queue and the time at which the physical queue should be joined.” (*Id.*, 16:5-9.)

FIG. 5.



(*Id.*, Fig. 5.)

## 12. Dependent Claim 17

***The method of claim 3 wherein in step f) at least a portion of said itinerary is announced audibly by said presentation means.***

99. Sim in view of Doi renders claim 17 obvious. Again, Sim discloses that the “portable unit” is able to provide the user with “ride sequence and times” communicated from the “controlling computer.” (Sim, 2:5-33.) Specifically, Sim discloses that each portable unit includes “***indicator means*** for indicating to [users] when it is time to join the or each queue” (*id.*, 2:7-12), and “the indication by the ***indicator means***” “could be audible, e.g., a spoken message or a tone.” (*Id.*, 3:32-35.) Sim also discloses that, as an alternative, a “simplified prompter [*i.e.*, portable unit] can be provided without such an alphanumeric display with a simpler ride indication arrangement for applications which do not require readable messages.”

(*Id.*, 17:16-21.) A POSITA would understand that in this arrangement, ride information can be provided to a user “audibl[y], e.g. a spoken message or a tone,” such as “Time to Go to Ride X.” (*Id.*, 3:28-35.)

### 13. Dependent Claim 19

***The method of claim 3 wherein said data indicates a first attraction of said first set of attractions, said first attraction having excessive demand, and wherein said software is less likely to select said first attraction in step d), whereby demand for said first attraction is moderated.***

100. As viewed by a POSITA, Sim in view of Doi renders claim 19 obvious. As discussed, Sim’s system includes data on park attractions. *See supra* ¶¶60-62 (Ground 1, claim 1[a]). Sim further discloses that its system maintains information on “demand” for park “resources” (e.g., rides). (Sim, 34:22-32, 35:1-10, 36:9-16.) Sim uses this data to moderate or adjust demand for attractions. For example, Sim teaches that “[s]tatistics and other management information,” including “resource demand information,” is available to its software (e.g., the Queue Manager), and that the Queue Manager’s “calculation can be in response to user preferences, ***on the overall demand in the system*** and any priority attached to particular user...” (*Id.*, 36:9-16, 34:22-32.) Sim adds that “[h]aving the timing and route planned by the computer reflect how busy the park is at that time” and enables the system to “le[a]d” or “encourage[]” users to visit different attractions. (*Id.*, 38:27-32, 22:13-24.)

101. Moreover, Doi’s system stores data regarding “crowd condition[s] at each attraction,” as well as “waiting times... by attraction types,” and its navigation planner includes an “optimization algorithm” that can use this to moderate demand at an attraction. (Doi, 9:33-51, 8:20-45.) Doi discloses that the crowd condition can be determined based on the “positional information” of customers (*id.*, 9:33-41) and the “optimization algorithm” takes into consideration “a crowd condition at each attraction, a waiting queue of customer waiting the attraction, and parameters such as necessary times for the customer waiting the attraction to move to other attractions.” (*Id.*, 45-51.) For example, Doi discloses that if “an attraction A is crowded,” its system “makes a plan to recommend other attractions to some of customer [sic] queueing at the attraction A that are selected in consideration of their age.” (*Id.*, 9:52-10:11.) Doi’s system can thus recognize when an attraction is crowded and moderate demand for that attraction by “guiding a non-crowded attraction to the customer.” (*Id.*, 10:38-44; *see also* 10:48-11:27.)

102. It would have been obvious to apply these teachings of Doi, and have Sim’s system select those attractions that are less crowded, for the same reasons discussed above. *See supra* ¶¶67-76 (Ground 1, claim 1[c]). For example, Doi and Sim disclose similar systems, address the same problems, and aim to achieve the same results. *Id.* A POSITA would have looked to Doi—and its disclosure of selecting rides to users that may be of interest (*e.g.*, based on age) and are less

crowded—so that Sim users would be provided with rides for their itineraries that match their interests but do not have long wait times. This would not change the ultimate output of Sim’s system, which would continue to provide itineraries as before, but would provide the added benefit of attraction selections that both match users’ interests and that would reduce user waiting times. Such would help further achieve Sim’s goals of “maximum ride/show utilization,” increasing spending on “secondary attractions,” and “greatly increas[ing] customer satisfaction.” (Sim, 22:4-12.)

#### 14. Dependent Claim 20

*The method of claim 3 further comprising the steps of: g) providing a storage accessible to said computer; and, h) recording at least a portion of said itinerary corresponding to a first attraction of said first set of attractions in said storage, thereby accumulating in said storage a directed demand corresponding to at least said first attraction.*

103. As viewed by a POSITA, Sim in view of Doi renders claim 20 obvious. Sim’s “controlling computer” includes “storage,” as it includes “memory” and has access to multiple “databases.” (Sim, 20:10-11, 18:29-19:27, 23:8-9.) These databases store information on users and attractions, *see supra* ¶¶60-66 (Ground 1, claims 1[a]-1[b]), and Sim adds that its “Queue Manager” uses “a simple but fast customizable flat *database* which [sic] *from which records are selected and processed* to ensure the correct prompts are to be sent the

appropriate messages and commands in any one batch of transmissions.” (Sim, 34:15-21; *see also* 8:28-9:9, claim 25.)

104. Sim further discloses that information on itineraries is stored in its system, stating that “[t]he controlling computer 3 can store information in a database on each user and each member of a group, e.g., ... calculated optimum route....” (*Id.*, 23:8-21.) Sim repeatedly states that its system tracks “resource” or ride “demand information,” so that it can adjust users’ itineraries. (*Id.*, 36:9-16, 34:22-32, 34:33-35:10.) Sim similarly adds that its Queue Manager includes a “queue information storage means” that tracks both the “predicted rate” and “actual rate” of each queue and uses this “store[d] information to optimise the length of... each queue sequence and to enable the otpimisation of the sequence of queues.” (*Id.*, 8:28-9:9, claim 25.) Sim also discloses that the controlling computer 3 stores the prompter serial number of each user and each member of a group, and maintains a “list of prompters queuing for each [ride]” in a “Queue Database,” including “[a]dd or [r]emove records.” (*Id.*, 19:4-7.) Sim further discloses that the controlling computer stores in its memory a predetermined range of identification codes (each is unique to a prompter) that correspond to the front of the queue sequence for each attraction so as to control guest access. (*Id.*, 20:7-12, 10:4-21.) Thus, in creating the itineraries for each guest or group of guests by directing them to each attraction at a calculated time and automatically controlling guest access,

Sim's system tracks the number of guests that are directed to each attraction, as it tracks which guests should be allowed to each attraction at certain time. According to the '983 Patent, the term "directed demand" as "the number of visitors directed to an attraction by the itineraries produced." ('983 Patent, 8:16-18.) Thus, by storing such queue information and using the queue information to generate itineraries and control access, Sim is tracking the "directed demand" of each attraction, *e.g.*, the number of users its system is directing to each attraction. *See also supra* ¶¶100-102 (Ground 1, claim 19) (discussing Doi tracking demand directed to attractions and applying Doi to Sim).

#### 15. Dependent Claim 22

***The method of claim 3 wherein in step d) said software applies a perturbation to a desirability of a first attraction of said first set of attractions, said perturbation producing a different result for said second set, thereby redistributing a directed demand corresponding to said first attraction to mitigate at least one selected from the group consisting of underutilization of said first attraction, excessive demand for said first attraction.***

105. As viewed by a POSITA, Sim in view of Doi renders claim 22 obvious. Both Sim and Doi disclose "redistributing a directed demand" for attractions to mitigate "underutilization" and "excessive demand." For example, Sim's system uses data on "demand" for park "resources" (*e.g.*, rides) to moderate or adjust demand for attractions. *See supra* ¶¶100-102 (Ground 1, claim 19). Sim further discloses that when the number of users being directed to an attraction is low, such that the attraction is "lightly loaded," its system can mitigate this by

closing the attraction and “re-allocat[ing] every user’s sequence.” (Sim, 24:32-11, 39:1-8.) This “allows savings on ride operating costs and staffing costs.” (*Id.*)

Similarly, Doi’s system recognizes when an attraction has “excessive demand” and moderates that attraction’s demand by “guiding a non-crowded attraction to the customer.” *See supra* ¶¶100-102 (Ground 1, claim 19). Doi’s system likewise recognizes when an attraction is “underutilized,” such as when “a popular attraction ‘Pokekun’ to be held still has non-reserved seats,” and mitigates this by directing customers to the attraction. (Doi, 10:12-33, 10:38-44.)<sup>4</sup>

106. With respect to software applying a “perturbation to a desirability” of an attraction, such that different results for attractions may be selected, the ’983 teaches that the perturbation function can change the “desirability of an attraction,” so that not all users are directed to the same attraction. (’983, 23:54-25:3, 26:8-22.) To apply a perturbation to the desirability of an attraction essentially means to take measures to influence the desirability of an attraction. (*Id.*) Sim in view of Doi renders this obvious. Doi teaches that selecting attractions for a user, such as based on matching of age information, “will not always cause a customer to move as planned.” (Doi, 10:53-59.) Doi’s system can address this by making an attraction

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<sup>4</sup> It would have been obvious to apply these teachings of Doi to Sim for the reasons discussed above. *See supra* ¶¶100-102 (Ground 1, claim 19).

more desirable to certain customers, so that “resources such as attractions can have an increased operation efficiency.” (*Id.*, 10:48-11:35.) Doi gives an example of adjusting “price,” using an “expectation function value,” to increase (and decrease) the desirability of an attraction to a user and the likelihood of such attraction being selected. (*Id.*) In this example, for an attraction that may not be the most desirable to the customer in the normal circumstance, a price discount for that attraction is provided with the information that no waiting time is required so that the desirability of the attraction is increased. By dynamically setting the price using the expectation function, Doi’s system exerts influence over the desirability of the attractions—the customer may originally plan to go to attraction A, but eventually go to attraction D instead because of no waiting time and the price discount.

107. It would have been obvious to apply these teachings of Doi, and have Sim’s system adjust the desirability of attractions to redistribute demand, for the same reasons discussed above. *See supra* ¶¶67-76, 100-102 (Ground 1, claims 1[c], 19). For example, Doi and Sim disclose similar systems, address the same problems, and aim to achieve the same results. *Id.* A POSITA would have looked to Doi—and its disclosure of adjusting the desirability of rides that may be of interest to users (*e.g.*, based on age) by changing pricing to mitigate demand—so that users of Sim would be provided with rides for their itineraries that match their interests but do not have long wait times. This would not change the ultimate

output of the Sim system, which would continue to provide itineraries as before, but would provide the added benefit of attraction selections that both match users' interests and that would reduce user waiting times. Such would help further achieve Sim's goals of "maximum ride/show utilization" and "greatly increas[ing] customer satisfaction." (Sim, 22:4-12.)

## 16. Dependent Claim 23

*The method of claim 3, wherein said data further comprises a first set of messages, each of said first set of messages selected from the group consisting of a marketing message, a discount offer, and a recommendation, each of said first set of messages having corresponding conditions, each of said first set of messages being associated with a corresponding first attraction of said first set of attractions, said software being further able to determine whether said conditions are met, said itinerary further comprising a second set of messages, said method further comprising the step of: g) selecting said second set of messages with said software such that said second set of messages consists of at least one of said first set of messages for which the corresponding conditions are met; wherein in step f) each of said second set of messages is provided to said party in conjunction with said itinerary; whereby each of said second set of messages message is available at an appropriate time.*

108. As viewed by a POSITA, Sim in view of Doi renders claim 23 obvious.

109. Claim 23 adds (a) marketing, discount, or recommendation "messages" having conditions and attractions associated with them and (b) software that can select and provide such messages to a party when applicable conditions are met. Sim includes marketing, discount, or recommendation messages associated with "attractions" and "conditions."

110. Sim’s “controlling computer 3” enables the “transmission of *messages* to the portable module 1.” (Sim, 15:1-3.) Specifically, “[a] suite of standard messages, each enabled by its activation code, is stored in read-only memory (ROM) in the prompter....” (*Id.*, 18:16-28.) “The controlling computer 3 will, after registration, transmit activation codes to initiate the display of messages to advise the user when they should join a physical line, or to display other standard messages.” (*Id.*; *see also* 32:18-25.) These messages can include “marketing” and “recommendation” messages that have certain “conditions” and are associated with certain “attractions.” For example, Sim’s system can issue “*zone specific* messages promoting other utilized attractions, other promotional messages and competitions.” (*Id.*, 38:8-10; *see also* 15:1-3, 18:16-28.) Sim discloses that “[s]ince the queue manager is able to monitor *the location* of the portable modules, it is possible for the queue manager to *send area specific messages* which are known to be in a specific area. Such messages can for instance be *prompting advertisements for local attractions or information on local facilities.*” (*Id.*, 11:22-28.) These messages are thus associated with “local attractions” and “local facilities,” as well as those attraction(s) in a particular area in the park (*e.g.*, “zone”) where the messages are to be issued. Further, when the “condition” of the user’s location being in a particular area is met, Sim will select and provide the messages to the user.

111. Stated differently, Sim contemplates different messages associated with different attractions—such as message A advertising a restaurant and message B advertising a show—and delivering each message when a party is in a certain area. If a party is issued an itinerary with two rides in these “zones”—ride 1 at 9 am and ride 2 at 11 am—Sim will provide the messages in conjunction with the party’s itinerary. Specifically, after the party arrives at ride 1, they will be issued message A, and after they move from ride 1 to ride 2, they will be issued message B, all based on the “condition” of their location being met. These messages will only be delivered when the party is in the correct “zone” or area during the course of their itinerary.

112. Messages can also be issued to recommend to “the user when they should join a physical line.” (Sim, 18:16-28, claim 1, 22.) Similarly, messages can be issued to notify a user she “arrived either before or after the [scheduled] time, is at the wrong ride or... is at the wrong ride and at the wrong time.” (*Id.*, 20:5-22.) Thus, a message that notifies a party she is 20 minutes before the scheduled time recommends the party come back to the attraction in 20 minutes; and a message that tells a party that she is at the wrong ride and where she should be recommends what attraction the user should proceed to. As another example, according to Sim’s system, when a party has a schedule of ride A at time 1 pm and ride B at 3 pm, and the party arrives at ride A at 1:15 pm, then Sim’s system will deny the party’s

access to ride A while sending a message explaining that the access is denied because the party arrived too late, and recommending the party to go on to the next ride (ride B). (*Id.*, 10:26-11:4, claim 30.) Each such message is associated with an attraction (*e.g.*, the ride to be joined, rides that should not be joined) and has a “condition” as to when it should be issued (*e.g.*, when the user is to join the ride or is at the wrong ride or ride time).

113. Sim’s “portable modules” can store “marketing” and “recommendation” messages in their “ROM,” and the “Queue Manager” software can use “activation codes” to cause those messages to be displayed on a user’s portable module if applicable conditions are met during an itinerary. For example, Sim contemplates that different messages can be associated with different “local attractions” or “local facilities”—such as message A advertising a restaurant and message B advertising a show—and delivering each message when a user is in a certain “zone” or area. If a user is issued an itinerary with two rides in these “zones”—ride 1 at 9 am and ride 2 at 11 am—Sim will provide her these messages in conjunction with her itinerary. Specifically, after the user arrives at ride 1, she will be issued message A as part of her itinerary, and after she moves from ride 1 to ride 2, she will be issued message B, all based on the “condition” of her location being met. These messages will only be delivered when the user is correct “zone” or area during the course of her itinerary and not, for example, at other times

during the itinerary. Similarly, Sim's "Queue Manager" selects and delivers "recommendation" messages that a user should join a queue, or is at the wrong ride or ride time and should return later, only when it determines that the applicable conditions are met during the course of an itinerary.

## 17. Dependent Claim 24

*The method of claim 3, wherein said software comprises a decision making routine responsive to at least a portion of said data corresponding to a first attraction of said first set of attractions and at least a portion of said information, said decision making routine performing at least a portion of step d) with respect to said first attraction.*

114. As viewed by a POSITA, Sim in view of Doi renders obvious claim 24. Sim's "Queue Manager is the controlling *software* program in the host computer." (Sim, 34:15-16.) This software includes "algorithms" (e.g., "decision-making routines") that use attraction data and party information to determine which rides and when to include in a user's itinerary. For example, Sim discloses:

The queue manager includes means of *calculating* the actual *time and sequence* of attendance *at queue entrances offered* to the user. This calculation can be *in response to user preferences*, on the overall *demand in the system* and any priority attached to the particular user and would result in effectively, a recommended route. This allows considerable control of the users. *Appropriate algorithms* ensure that sufficient users are invited to join the physical queue at a rate that will maximise utilisation of the particular resource.

(Sim, 34:22-32.) Sim adds that the “structuring and managing of the queues are features which can be customised to suite [sic] a particular need,” that the controlling computer will “thus operate in accordance with the customised algorithm to manage the queues,” and that the “controlling computer 3 can be programmed to re-allocate every user’s sequence in accordance with a preset algorithm or to cope with unexpected events.” (*Id.*, 23:27-24:35; *see also* 23:8-21, 35:21-30.) Thus, Sim teaches using algorithms to decide which rides from the rides in a park to offer to a user and when, based on both attraction data and user preferences.<sup>5</sup> A POSITA would understand that such algorithms implemented as software instructions are “decision making routines.”

## **18. Dependent Claim 25**

***The method of claim 3, wherein a portion of said data corresponding to a first attraction of said first set of attractions is representative of at least one member of the group consisting of expected queue length, actual queue length, expected attendance, location of an entrance, location of an exit, showtime, mode of operation, routes to other attractions of said first set of attractions, routes from***

---

<sup>5</sup> Additionally, as explained, it would have been obvious to apply Doi to Sim and select attractions for the itinerary of Sim based on the matching of attraction data and user information, as taught by Doi. *See supra* ¶¶67-76 (Ground 1, claim 1[c]). Doi’s selection of rides to recommend is part of a routine, as its system clearly continuously checks against current ride crowding conditions, and current showtimes, to make such selections.

*said other attractions, travel time to said other attractions, capacity, theoretical hourly ride capacity, holding capacity, duration, continuous running, availability, a scheduling factor, an acceptance factor, an admission requirement, an admission class, an admission grade, operating hours, inoperation, and wheelchair accessibility.*

115. Sim in view of Doi renders claim 25 obvious. For example, Sim’s system includes data on:

- “predicted” and “actual” queue information for each attraction (“expected queue length” / “actual queue length”)—(Sim, 8:28-9:9);
- whether an attraction is busy, open, or closed (“availability” / “inoperation” / “capacity”)—(*id.*, 39:1-9, 23:29-24:22, Table 2, 35:21-30, 23:29-24:22, 38:27-32);
- attraction age, height, and health-related restrictions (“admission requirement,” “wheelchair accessibility”)—(*id.*, 22:29-23:3, 23:8-21, 34:2-11); and
- which rides (or queues) require separate tickets or additional fees (additional “admission requirements”)—(*id.*, 35:31-36:5, 38:11-15, 12:35-13:28).

*See also supra* ¶¶60-62 (Ground 1, claim 1[a]) (discussing attraction data).

**B. Ground 2: Sim (as Modified by Doi) in View of Waytena**

116. I have reviewed Waytena. Waytena is titled “Assigning and Managing Patron Reservations for Distributed Services Using Wireless Personal

Communication Devices.” Waytena was filed on April 24, 1997, and issued on November 2, 1999. I understand that Waytena is prior art under at least pre-AIA 35 U.S.C. §102(b).

#### **1. Dependent Claim 4**

***The method of claim 3 wherein said information comprises a preference of said party; wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said preference, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.***

117. Sim (as modified by Doi) in view of Waytena renders claim 4 obvious. As discussed, Sim in view of Doi teaches a system that recommends an itinerary of attractions and attraction times to a party, based on data about such attractions matching party information like age. *See supra* ¶79 (Ground 1, claim 3). Waytena simply adds that additional party information, such as types of rides a party prefers, can be also used to determine which rides to suggest to a party that would be desirable. (Waytena, 7:9-31, 13:44-14:35, Fig. 5A.)

118. More specifically, Waytena, like Sim, discloses a system for creating an itinerary for patrons at an amusement park. (Waytena, Abstract, 2:45-57.) Waytena’s system includes “personal communication devices (PCDs)” provided to patrons when they enter the park. (*Id.*, 2:45-57, 5:1-12, 5:59-6:15; *see also* Figs. 1, 1A, 2.) Using these, patrons create “patron information records” about their group members, including age, height, and health-status—the same information Sim

collects. (*Id.*, Fig. 5A, 7:9-31, 13:44-14:35; *see also* Figs. 2, 2A.) Waytena further discloses that the party information can include “attraction *preferences*,” such as “thrill rides” or “kiddie rides,” which can be input through check boxes on a party interface of the PCDs:

WELCOME TO

PLEASE ENTER THE FOLLOWING INFORMATION FOR EACH MEMBER OF YOUR GROUP.

NAME  SEX

AGE  YEARS

HEIGHT  FEET  INCHES

WEIGHT  LBS.

HEALTH CONDITIONS: (CHECK ALL THAT APPLY)

☐ BACK CONDITION ☐ VERTIGO

☐ HEART CONDITION ☐ WHEELCHAIR

☐ PREGNANT ☐ HEARING DISABILITY

☐ NURSING ☐ OVERWEIGHT/LARGE

RIDE PREFERENCES: (CHECK ALL THAT APPLY)

☐ THRILL RIDES ☐ FRONT SEAT

☐ EDUCATIONAL ☐ REAR SEAT

☐ SHOWS ☐ AISLE SEAT

☐ KIDDIE RIDES

CANCEL

NEXT

DONE

519

520

521

522

523

Ride preferences of the party

FIG. 5A

(*Id.*, Fig. 5A (annotated), 7:9-31, 13:44-14:35, Fig. 2A.) In addition, Waytena’s system includes “data” about park attractions. For example, Waytena’s PCDs store “attraction description records 236” for each attraction in “storage 205.” (Waytena, 7:60-8:31.) Each record refers to a particular attraction, and includes “flags” describing characteristics of it. (*Id.*, Fig. 2B, 7:60-8:31.)

119. This attraction data distinguishes a portion of attractions at the park as being more desirable with respect to the user’s preferences. (*Id.*, 14:13-24.) For example, where a party indicates a preference for “thrill rides,” this will distinguish

among attractions at the park having flags indicating thrill ride characteristics versus rides having flags indicating they are mild and appropriate for small children. Further, Waytena's system uses patron preference information to present a "list of attractions that match the particular preferences of the members of the patron's group." (*Id.*; see also 15:3-6 ("patron preferences 403 specifying particular types or characteristics of attractions that the patron has indicated are preferable, as encoded in flags 225 of storage 202").) That is, those attractions included in the list are distinguished from those not included, based on the party's preferences indicating they would be more desirable.

120. It would have been obvious to include party preferences, such as preferred ride types, as disclosed in Waytena as part of the party information in Sim. Sim and Waytena are both in the field of theme park queue management, both disclose using portable customer devices, both disclose collecting party information such as age, height, and health, and both disclose use of a computer to process data and provide park recommendations to customers. Adding Waytena's "user preference" information, such as preferred ride types, would simply be the inclusion of additional relevant data that would be stored in the same party information records already present in Sim, without needing any modification to the system or additional components. Such would have been the use of a known technique to improve a similar device.

121. Moreover, a POSITA would have been motivated to combine the teachings of Waytena and Sim. Sim discloses that its “queue management system should maximise ride/show utilisation, ease park management issues, raise spending on secondary attractions and most importantly, greatly increase customer satisfaction.” (Sim, 22:4-8.) Waytena’s reservation system is disclosed as achieving these same goals, and provides a similar solution of scheduling attractions for a visitor based on both party information and data about operating status and crowding of attractions. (Waytena, 12:13-13:33, 25:17-29.) Waytena merely adds that party preferences, like ride types, can also be included to allow the system to present the party “with a list of attractions that match the particular preferences of the members of patron’s group.” (*Id.*, 14:20-24.)

122. A POSITA would have been motivated to include such preference information and recommended list of “matching” attractions in the system of Sim. Doing so would allow, for example, Sim to maximize ride/show utilization and raise spending on and affinity to attractions in the park by suggesting rides to parties that they would enjoy but may not know about. That is, selecting rides that match party preferences increases the chances that the party enjoys the attractions they attend, and are then more likely to return to the park and recommend the park to others. Sim also acknowledges that party queue sequences may need to be “re-allocated” when certain rides are closed. (Sim, 23:32-24:23.) A POSITA would

have thus understood that by having party information on preferred ride types, as taught by Waytena, Sim's system could recommend alternative rides as part of this re-allocation process, thereby increasing ride utilization and customer satisfaction.

123. Moreover, a POSITA would have understood that modifying Sim to include party preference information of, for example, ride types, would enhance the selection of rides for the itinerary in the Sim system as taught by Doi. *See supra* ¶¶63-66 (Ground 1, claim 1[b]). Waytena, like Doi, includes a recommendation of attractions for parties based on a matching between party information and attraction data. While Doi selects rides based on a matching of, for example, ages of members of party with recommended ages of attractions, Waytena teaches that such recommendations can also be based on matching ride type preferences with ride information. For example, Waytena's teaching of recommending rides because a party selected "Kiddie Rides" as a preference (Waytena, Fig. 5A) is a known alternative to, and would achieve the same result as, Doi's teaching of recommending kiddie rides and attractions based on a determination that a group has a young child.

124. Including party ride preference information in Sim would have merely been the inclusion of an additional known technique to a similar system—that is, Sim (as modified by Doi) already selects a second set of attractions for an itinerary based on a matching of user age to ride age recommendations, and using

preferences would allow the system to provide the same age appropriate recommendations of rides when party ride type preferences match ride information. As mentioned, a party specifying a “Kiddie Ride” preference is a simple substitute for a party indicating that they have children of a young age, with both resulting in the selection of rides popular with young children. As another example, if party information indicates a party prefers “educational” and “shows” (Waytena, Fig. 5B), the system would select educational performances, like a historical reenactment, at an available showtime for inclusion in the user itinerary as one of the second set of attractions.

## **2. Dependent Claim 18**

***The method of claim 3 further comprising the step of: g) providing a reservation computer in communication with said computer, said reservation computer providing an indication whether said a first attraction is available; wherein in step d) said software excludes said first attraction from said second set of attractions when said reservation computer indicates said first attraction is unavailable.***

125. Sim (as modified by Doi) in view of Waytena renders claim 18 obvious. Waytena discloses a “reservation system” for attractions at, for example, an amusement park. (Waytena, 5:1-12.) Waytena’s system includes a “plurality of attraction computers 101... each associated with a particular attraction. In one embodiment these attraction computers are implemented as components of a single computer system or group of computer systems... In another embodiment, each attraction computer is implemented as a separate computer and may be physically

disposed at or near its associated attraction.” (*Id.*) These attraction computers include “attraction information storage 213” that “maintains current information describing the particular attraction” including “***current status 266 of the attraction***, for example, OPERATING, CLOSED, SCHEDULED MAINTENANCE, PAUSED, and the like.” (*Id.*, 11:18-61.)

126. The system further includes patron “PCDs” that communicate with the attraction computers and allow users to transmit reservation requests. (*Id.*, 5:59-6:15, 7:2-8:67, 12:13-63, Figs. 1-4, 6-7.) These reservation requests are received by a reservation “request processor 209” in the attraction computer, which determines whether the requested reservation is available. (*Id.*, 12:38-63.) If request processor 209 determines the attraction is unavailable, “based on attraction information stored in storage 213 (such as, for example, operating hours for the attraction), virtual queue 210 containing information describing pending reservations, and physical queue monitor 103 which provides information describing the physical queue for the attraction,” it “rejects” the request and sends a message to the PCD informing the “patron that the attraction is ***unavailable***.” (*Id.*, 11:18-61, 12:38-49; 16:56-17:32, 19:20-60, 21:6-24, Figs. 2, 6.) The rejection message may include “a reason code” informing the patron “as to the reason for unavailability (for example: attraction closed, reservation time not available, and the like).” (*Id.*, 21:6-24, 16:56-17:32.) That is, if the reservation request processor

determines that the attraction is unavailable, it will not be included or available for selection in the patron's itinerary.

127. It would have been obvious to modify Sim to include Waytena's teachings of having a reservation computer associated with each attraction that provides information on, for example, whether the attraction is available or unavailable. As discussed, Sim and Waytena are both in the field of theme park queue management, both disclose using portable customer devices, both disclose collecting providing reserved attractions to a party, and determining whether a party is allowed access to an attraction at a particular time based on the reservations. *See supra* ¶¶117-124 (Ground 2, claim 4). Moreover, Sim already determines if an "attraction is available," "exclude[s]" that attraction if "unavailable" due to ride closure or failure, and "re-allocates" itineraries as needed. (Sim, 23:32-24:32, 39:1-8.) Waytena discloses that such information on rides being closed down or otherwise unavailable can be obtained by including a reservation "request processor 209" in an "attraction computer 101" "associated with each attraction." (Waytena, 11:18-61, 12:38-49; 16:56-17:32, 19:20-60, 21:6-24, Figs. 2, 6.) A POSITA would have understood that associating an "attraction computer" with each attraction in Sim would have been the use of a known technique (*e.g.*, including a computer that can monitor attraction availability and

handle reservations) to improve a similar theme park queue management system in the same way.

128. A POSITA would have had a reasonable expectation of success in implementing an attraction computer as disclosed in Waytena with each attraction in Sim's system. Sim already contemplates including an "access control mechanism associated with the or each module detector to allow access to a queue area" for each ride. (*Id.*, 10:4-29.) *See supra* ¶¶95-96 (Ground 1, claim 13). Thus, Sim discloses access hardware located at each ride, similar to the attraction computers in Waytena, and Sim's system is therefore ready for modification. It would have been obvious to modify these existing gate units in Sim to include the reservation computers disclosed in Waytena, such that each attraction can provide information on its availability status and alert the central controller when an attraction becomes unavailable and queue sequences need to be re-allocated.

129. Indeed, both Sim and Waytena contemplate a central computer, and Waytena teaches that such central control computer could have access to the attraction computers 101 to allow "access to all attraction computers by park staff" to monitor queues for attractions, monitor and change reservation schedules, and access or change information describing the state of attractions. (Waytena, 2:46-57, 6:16-30.) A POSITA would thus have understood with the addition of "attraction computers 101" associated with each attraction in Sim, Sim's "controlling

computer” could continue to, for example, monitor and modify “queues” as before—only now a local computer would be able to provide ride operation status. That is, including Waytena’s “attraction computers 101” in Sim’s system would have been merely the inclusion of a known component to ensure that Sim’s system receives the information regarding ride operation status that its central computer requires to determine when “re-allocation” of schedules is required.

### 3. Dependent Claim 21

***The method of claim 3 further comprising the steps of: g) providing a reservation computer in communication with said software; and, h) making a reservation with said reservation computer for said party for a first attraction of said second set of attractions; whereby said reservation for said party is accessible to users of said reservation computer.***

130. Sim (as modified by Doi) in view of Waytena renders claim 21 obvious. As discussed, it would have been obvious to include Waytena’s reservation computer (attraction computer 101) in the system of Sim (as modified by Doi). *See supra* ¶¶125-129 (Ground 2, claim 18). Again, Waytena’s system includes reservation computers (“attraction computers 101”) associated with each attraction in a park. *Id.* Waytena’s system further includes patron “personal communication devices (PCDs)” that communicate with the attraction computers and allow users to transmit reservation requests. (*Id.*, 5:59-6:15, 7:2-8:67, 12:13-63, Figs. 1-4, 6-7.) These reservation requests are received by a reservation “request processor 209” in the attraction computer, which determines whether the

requested reservation is available. (*Id.*, 12:38-63.) If request processor 209 determines the attraction is unavailable, “based on attraction information stored in storage 213 (such as, for example, operating hours for the attraction), virtual queue 210 containing information describing pending reservations, and physical queue monitor 103 which provides information describing the physical queue for the attraction,” it “rejects” the request and sends a message to the PCD informing the “patron that the attraction is unavailable.” (*Id.*, 11:18-61, 12:38-49; 16:56-17:32, 19:20-60, 21:6-24, Figs. 2, 6.) If, on the other hand, the attraction is available, the processor sends a “proposed time or position” of a reservation for the patron to confirm:

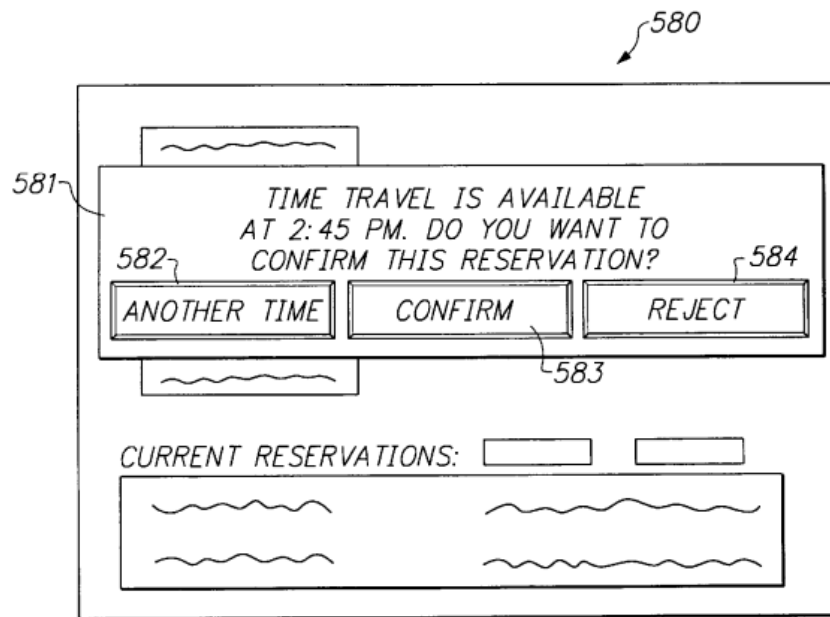


**FIG. 5E**

(Waytena, Fig. 5E, 12:50-13:28, 16:56-17:32, 20:15-21:34, 19:20-60.) If the party accepts or confirms the reservation, then the attraction computer makes a reservation for the party for that particular attraction and time. (*Id.*, 12:50-13:28, 16:56-18:29, 20:15-21:34.) Through this process, the attraction computer makes reservations for the parties, and saves “flags” in the system that “the reservation is now confirmed.” (*Id.*, 20:15-21:34.)

131. These reservations for a party made with the attraction computers 101 are accessible to users of the attraction computers. In particular, Waytena discloses a “central attraction control interface 104” that allows “access to all attraction computers by park staff.” (Waytena, 6:16-30.) This central control interface allows park staff to, among other things, use the attraction computers to access reservation schedules and make manual changes, if necessary. (*Id.*, 2:55-57, 6:16-30, 10:53-67.)

132. It would have been obvious to modify Sim to include Waytena’s teachings of having attraction reservation computers that can make and maintain reservations for attractions. Sim and Waytena are in the same field and disclose similar systems, and a POSITA would have been motivated to include Waytena’s attraction computers for making reservations in Sim to ensure that the current operating status and crowd conditions of each attraction are properly taken into account when reservations are requested. Sim’s central computer would continue

to operate in the same way, monitoring overall status and queue requests of parties. The inclusion of the attraction computers for making reservations would simply provide a known, common method of making reservations within the overall system. *See also supra* ¶¶125-129 (Ground 2, claim 18) (further rationale for applying Waytena to Sim).

### **C. Ground 3: Grounds Based on Waytena**

#### **1. Independent Claim 1**

133. As viewed by a POSITA, Waytena renders obvious claim 1.

**1[pre]:** [1] *A system for providing an itinerary to a party, [2] said itinerary comprising a second set of attractions selected from a first set of attractions, said system comprising:*

134. Waytena discloses claim 1[pre] to the extent the preamble limits the scope of the claim.

135. *First*, Waytena discloses a “system” that provides an “itinerary” to a party. In Waytena, a “group of patrons, such as a family, entering the [amusement] park is given one or more PCDs [*i.e.*, personal communication devices]” having a “screen display for displaying text and graphic information” and a “user interface component” for “receiving input from the patron.” (*Id.*, 2:58-65; 6:59-7:8, Fig. 2.) Users can create “patron information records” on their PCDs by entering information about their group, including things like “age,” “sex,” “height,” “weight,” and “flags” that contain “coded information describing preferences and characteristics of the guest”:

WELCOME TO

PLEASE ENTER THE FOLLOWING INFORMATION FOR EACH MEMBER OF YOUR GROUP.

NAME  SEX

AGE  YEARS

HEIGHT  FEET  INCHES

WEIGHT  LBS.

HEALTH CONDITIONS: (CHECK ALL THAT APPLY)

☐ BACK CONDITION ☐ VERTIGO

☐ HEART CONDITION ☐ WHEELCHAIR

☐ PREGNANT ☐ HEARING DISABILITY

☐ NURSING ☐ OVERWEIGHT/LARGE

RIDE PREFERENCES: (CHECK ALL THAT APPLY)

☐ THRILL RIDES ☐ FRONT SEAT

☐ EDUCATIONAL ☐ REAR SEAT

☐ SHOWS ☐ AISLE SEAT

☐ KIDDIE RIDES

CANCEL

NEXT

DONE

FIG. 5A

(*Id.*, Fig. 5A, 7:9-31, 13:44-14:35; *see also* Figs. 2, 2A.) As shown, party “preferences” may include whether the patron likes thrill rides, educational attractions, shows, or kiddie rides. (*Id.*) The PCDs further include data on each park attraction, including “age” restrictions, “height” restrictions, “weight” restrictions, “location,” “operating hours,” and “flags” that contain encoded information describing attraction characteristics. (*Id.*, 7:52-8:31, Figs. 2, 2B.)

136. Waytena discloses its system uses this party information and attraction data to generate a list of attractions for a patron to visit at the park. In particular, the PCDs will present patrons with a “list of attractions that ***match the particular preferences*** of the members of the patron’s group.” (*Id.*; 14:13-24; *see also* 15:3-6 (“[P]atron preferences 403 specifying particular types or characteristics

of attractions that the patron has indicated are preferable, as encoded in flags 225 of storage 202.”.) Patrons can then make reservations for those attractions using their PCDs, and the PCDs will display a list of the scheduled attractions along with corresponding times to visit them:

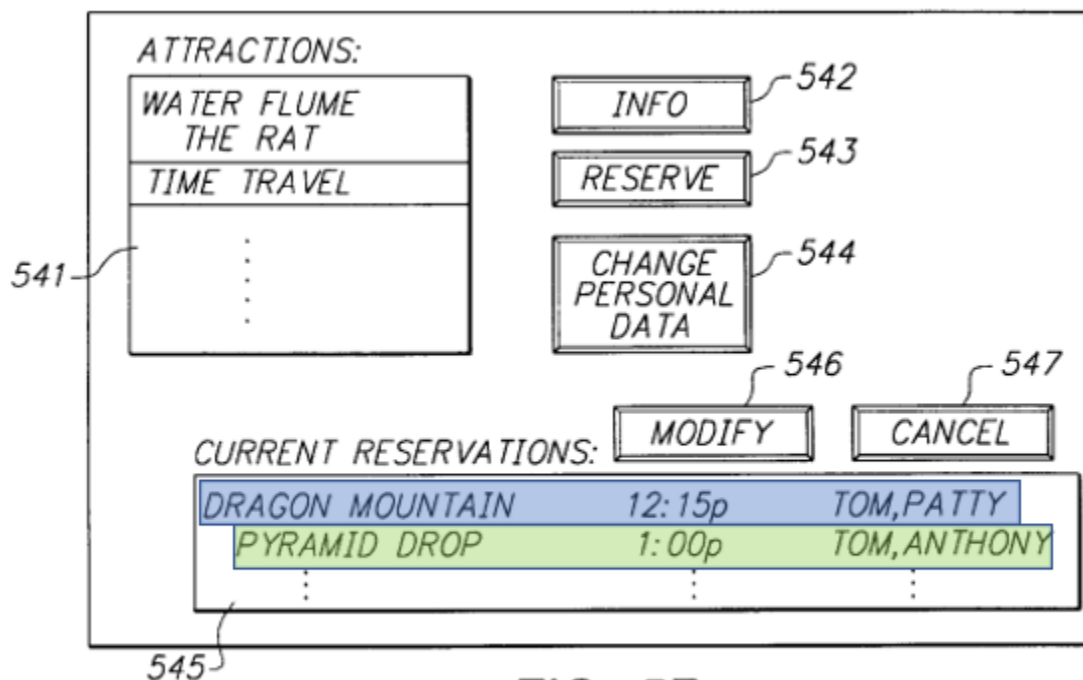


**FIG. 5B**

(*Id.*, Fig. 5B (annotated), 14:13-20; *see also* 5:59-6:15, 7:2-8:67, 11:18-61, 12:13-13:28, Figs. 1-4.)

137. **Second**, the “itinerary” in Waytena comprises “a second set of attractions selected from a first of attractions.” As discussed, Waytena’s PCDs contain data on each attraction in the park—that is, they have a full list of park attractions, which is a first set of attractions. (*Id.*, 7:60-8:31.) *See also infra* claim 1[a]. Thus, when the PCD presents the patron with a “list of attractions that match

the particular preferences of the members of the patron's group," that list is a subset (or second set) of the available attractions in the park. (*Id.*, 14:13-24.) Similarly, the list of attractions that a patron has reservations for, as shown in Figure 5B above, are a selected subset of the attractions in the park, which could also be considered as a second set of attractions selected from the first set of attractions. (*Id.*, Fig. 5B, 14:13-20.) *See also infra* claim 1[c].

**1[a]: data regarding said first set of attractions;**

138. Waytena's system includes "data" regarding the first set of attractions (*e.g.*, the available attractions in the park). Waytena discloses "attraction description records 236" stored in "storage 205" of the PCDs. (Waytena, 7:60-8:31.) Each record refers to a particular park attraction, and includes data on text and graphical descriptions of the attraction, minimum and maximum ages for the attraction, minimum and maximum heights and weights, location within the park, operating hours, and "flags" describing characteristics of the attraction:

| Attraction ID | Name            | Ptr. to Description | Age (min, max) | Height (min, max) | Weight (min, max) | Location (x,y) | Operating Hours | Flags |
|---------------|-----------------|---------------------|----------------|-------------------|-------------------|----------------|-----------------|-------|
| 1005678       | Water Flume     | F0034E              | 8, 65          | 54, 84            | 90, 250           | 1521, 1122     | 10:00-16:00     | 1A22  |
| 1004629       | The Rat         | F012E4              | 8, 65          | 54, 84            | 50, 250           | 422, 98        | 10:00-18:00     | A113  |
| 1006689       | Time Travel     | F01AB2              | 8, 65          | 48, 84            | 50, 250           | 334, 95        | 10:00-20:00     | FF59  |
| 1005594       | Dragon Mountain | F02871              | 6, 12          | 36, 60            | 40, 130           | 2110, 2339     | 10:00-20:00     | FEF1  |
| 1009813       | Pyramid Drop    | F0301A              | 8, 65          | 54, 84            | 90, 250           | 1123, 1339     | 10:00-20:00     | 586C  |
| ...           | ...             |                     |                |                   |                   |                |                 |       |

**FIG. 2B**

(*Id.*, Fig. 2B, 7:60-8:31.)

139. Similarly, Waytena’s system includes an “attraction computer 101” associated with each attraction that has “attraction information storage 213.” (*Id.*, Fig. 2E, 11:18-12:13.) This stores the attraction “ID 423, name 231, pointer to description 232, age restrictions 237, height restrictions 238, weight restrictions 239, location 233, and operating hours 234,” as well as attraction capacity, staffing, throughput, and current status:

213

|     |                    |                 |
|-----|--------------------|-----------------|
| 423 | Attraction ID      | 1005594         |
| 231 | Name               | Dragon Mountain |
| 232 | Ptr. to Desc.      | F02871          |
| 237 | Age (min, max)     | 6, 12           |
| 238 | Height (min, max)  | 36, 60          |
| 239 | Weight (min, max)  | 40, 130         |
| 233 | Location (x,y)     | 2110, 2339      |
| 234 | Operating Hours    | 10:00 – 20:00   |
| 261 | Cycle Capacity     | 18              |
| 262 | Est. Throughput    | 120             |
| 263 | Est. Downtime      | 5               |
| 265 | Nominal Staff      | 6               |
| 266 | Current Status     | OPERATING       |
| 267 | Curr. Throughput   | 108             |
| 268 | Curr. Staff        | 6               |
| 269 | Today's Throughput | 116             |
| 270 | Today's Downtime   | 0               |
| 264 | Flags              | FEF1            |

**FIG. 2E**

(*Id.*)

**1[b]:** *information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;*

140. Waytena discloses claim 1[c]. Waytena discloses patrons can use their PCDs to create “patron information records” about their group members, including age, weight, height, and health-status. (*Id.*, Fig. 5A, 7:9-31, 13:44-14:35; *see also* Figs. 2, 2A.) These party information records can further include “attraction

*preferences,*” such as “thrill rides” or “kiddie rides,” which can be input through check boxes on the PCD’s user interface:

WELCOME TO

PLEASE ENTER THE FOLLOWING INFORMATION FOR EACH MEMBER OF YOUR GROUP.

NAME  SEX

AGE  YEARS

HEIGHT  FEET  INCHES

WEIGHT  LBS.

HEALTH CONDITIONS: (CHECK ALL THAT APPLY)

☐ BACK CONDITION ☐ VERTIGO

☐ HEART CONDITION ☐ WHEELCHAIR

☐ PREGNANT ☐ HEARING DISABILITY

☐ NURSING ☐ OVERWEIGHT/LARGE

RIDE PREFERENCES: (CHECK ALL THAT APPLY)

☐ THRILL RIDES ☐ FRONT SEAT

☐ EDUCATIONAL ☐ REAR SEAT

☐ SHOWS ☐ AISLE SEAT

☐ KIDDIE RIDES

CANCEL

NEXT

DONE

(*Id.*, Fig. 5A (annotated), 7:2-31, 13:44-14:35, Fig. 2A.)

141. At least a “portion” of this party information “distinguishes among the “first set of attractions with respect to said data.” For example, Waytena’s system receives information on group members, including their “age, height, and weight” and “health conditions.” (Waytena, 7:9-28; 13:50-60.) The system compares this information to corresponding age, height, weight, and health restrictions in the attraction descriptions to “determine the validity of reservation requests.” (*Id.*, 7:29-31, 8:26-31, 14:56-15:38 (noting that the PCD “may also check, for example, that members of the group are of sufficient age and height to enjoy the selected attraction *by comparing information in patron information storage 202 with the*

*description data of the attraction in the attraction description storage 205.”), 16:52-17:9, Figs. 4, 5D.) If members of a group are not “of sufficient age and height,” then reservation requests will be determined invalid, and the user(s) will not be allowed to attend the attraction. Thus, this information about parties (e.g., age, height, weight) distinguishes among attractions the parties are allowed to attend (e.g., where the parties meet age, height, and weight restrictions) and those they are not. See also *infra* claim 1[c].*

142. As another example, where a party indicates a preference for “thrill rides,” this information will distinguish among attractions at the park having flags indicating thrill ride characteristics versus rides having flags indicating they are mild and appropriate for small children. Waytena’s system uses patron preference information to present a “list of attractions that match the particular preferences of the members of the patron’s group.” (Waytena, 7:9-31, 13:44-14:35, Figs. 2A, 5A; see also 15:3-6 (“[P]atron preferences 403 specifying particular types or characteristics of attractions that the patron has indicated are preferable, as encoded in flags 225 of storage 202.”).) That is, those attractions included in the list are distinguished from those not included, based on the party’s preferences indicating the attractions would be more desirable.

***1[c]: a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions, said second set of attractions consisting of at least some of said first***

***set of attractions for which said data substantially matches with said information;***

143. Waytena renders obvious claim 1[c].

144. Waytena discloses a “computer” that has access to attraction “data” and party “information.” Waytena discloses that parties are provided with “PCDs,” which are “small, hand-held portable computers including a rechargeable battery (not shown), microprocessor or CPU 106, display screen 109, auxiliary output device 110 such as audio speaker or vibration mechanism, input device such as a pen-based input device 108, RAM 107, and storage device such as a disk drive 111.” (Waytena, 5:59-6:15, 6:59-7:8.) The PCDs include “patron information records 226 stored in storage 202” and “attraction description records stored in storage 205.” (*Id.*, 6:59-8:31, 13:44-14:2, Figs. 1A, 2, 2A-2B.) *See also supra* ¶¶134-137 (Ground 3, claim 1[pre]).

145. The PCDs implement a “software architecture” that includes a “user interface 201” and software “modules” including “request filtering and generation module 203,” “reservation alerts module 204,” “communications module 207,” “reservation confirmation module 208,” and “initialization module 214.” (*Id.*, 6:59-7:8, 8:32-9:62, 12:25-14:25, Figs. 2, 3, 5.) The software modules can cause the “user interface 201” to present “a screen 540, as shown in FIG. 5B, which includes a scrollable and/or pageable list 541 of available attractions, buttons 542 and 543 for obtaining information or generating reservation requests for selected

attractions, a button 544 for changing patron information, a scrollable and/or pageable list 545 of previously-made reservations, and buttons 546 and 547 for modifying or canceling previously-made reservations.” (*Id.*, 14:13-35, Fig. 5B.) Moreover, the PCD software can present the party with “a list of attractions that match the particular preferences of the members of the patron’s group.” (*Id.*) That is, the computer, with its software, can select and display a custom list of recommended attractions for a party to visit, by determining which attractions “match” the party’s preferences. Additionally, the software enables reservations to be requested for particular attractions (*e.g.*, such as the recommended list), such as through the user interface. (*Id.*, 14:36-51.) When doing so, the PCD’s “request filtering and generation module” first determines if the reservation request for an attraction is valid, including by matching party information, such as age and height, to age and height restrictions for the attraction. (*Id.*, 14:52-15:50, Figs. 3-4; *see also id.*, 8:32-9:58.) If a request is valid, then it is transmitted to the “attraction computer 101,” which verifies the request and transmits a proposed reservation time back to the PCD for confirmation. (*Id.*, 9:1-20, 15:47-18:11.)

146. I understand that during prosecution, Applicants attempted to distinguish Waytena. Applicants argued that in the claimed invention of the ’983 the software alone must select the attractions without the party’s involvement. Applicants argued that, in contrast, Waytena requires a party to be involved in the

“selection” of attractions. To the extent this is a distinction, Waytena alone renders this obvious. Waytena already discloses its PCD *selecting* attractions that “match” a party’s preferences and presenting these attractions to a party in a list that they can then pick from to schedule reservations.<sup>6</sup> At the very least, it would have been obvious over Waytena to simply present this list with proposed reservation times for each recommended (*i.e.* computer-selected) attraction, without party involvement. This gives the party the option to simply accept an entire list of attractions and proposed times (e.g., an itinerary), without having to schedule reservations for each individual attraction (*e.g.*, if the user wanted to use the entire recommended list). That is, the party follows the itinerary that the system already generates for her based on her information, *i.e.*, goes to each attraction on the recommended list at the designated (*e.g.*, “next available”) time.

147. A POSITA would have recognized Waytena’s system could readily do this—the PCD already selects matching attractions and presents them to the party, and the PCD is further configured to send reservation requests to attraction computers for individual attractions. (Waytena, 14:12-17:55, Figs. 5A-5E.)

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<sup>6</sup> This is all that is required by the claim—the computer “selects” attractions. The claim does not require that the computer also, with no user intervention, provide the complete itinerary of selected attractions *and* times to visit those attractions.

148. Waytena also discloses allowing a party to simply select “next available time” for each recommended (or computer-selected) attraction, and the PCDs and attraction computers communicate to provide a reservation time that fits ride availability and the party’s existing schedule. (*Id.*, 12:25-29, 14:46-47, 14:56-15:38, 16:28-38, 23:3-24) (indicating the system takes into account existing reservations and, for example, the time to get from one attraction to another when suggesting reservation times).) A POSITA would have understood that, rather than waiting for a party to select “next available time” for each selected or recommended attraction, the PCD could use “next available time” as a default and make such selections itself. Thus, these existing processes in Waytena could be used to present a list of selected, matching attractions and proposed times to visit each attraction for the party to confirm all at once, without any party involvement.

149. That is, it would have been obvious to simplify what is now a multi-step process in Waytena, where a party can individually choose and reserve among computer-selected (or recommended) attractions, into an easy one-step process that gives the party the same resulting schedule of reserved attractions. Currently, as shown below, Waytena’s PCD presents a party with a list of selected matching attractions (such as list 541 in Fig. 5B). If the party wants to use this list of matching attractions as her itinerary, she must click on each attraction, such as “Time Travel,” and start the reservation process by selecting “Reserve 543”:

## Custom List of Attractions That Match Party Preferences

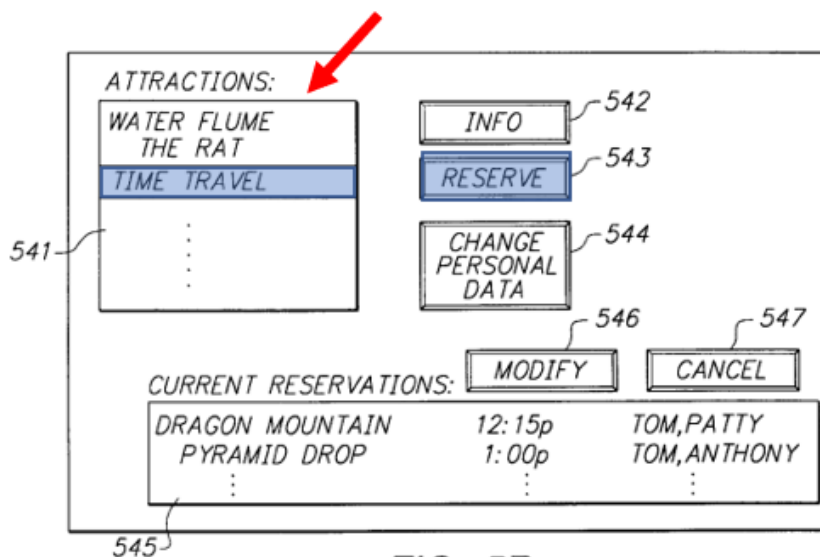


**FIG. 5B**

(*Id.*, Fig. 5B (annotated), 14:12-17:55.)

150. Then, the party is presented with another screen where they can simply allow the system to select the “next available” time:

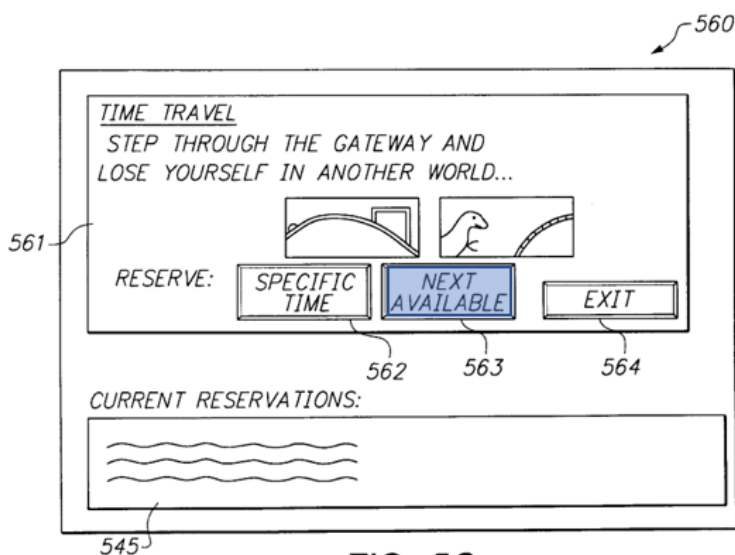


**FIG. 5C**

(*Id.*, Fig. 5C (annotated), 14:12-17:55.) Following this, the PCD screen displays an available time for the attraction (such as showing “2:45 pm” availability for “Travel”) and the party can “Confirm” the reservation:

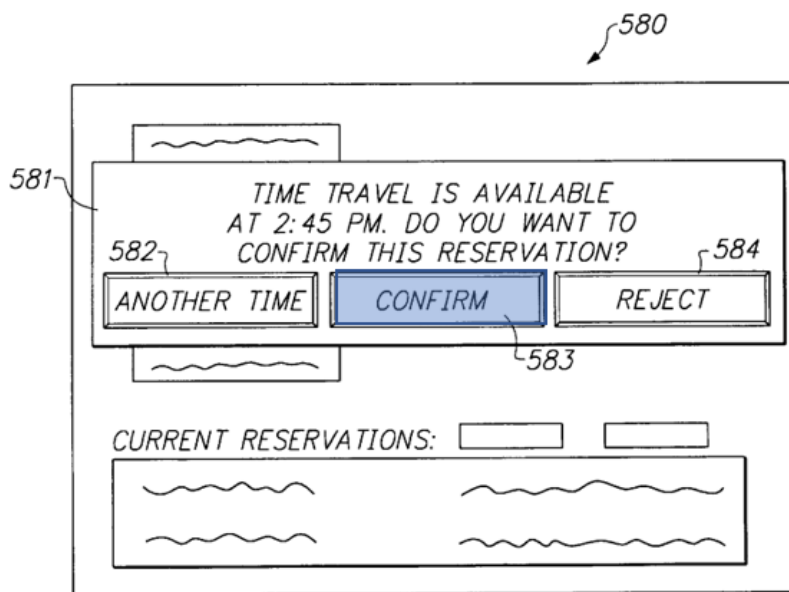


**FIG. 5E**

(*Id.*, Fig. 5E (annotated), 14:12-17:55.) This process is then repeated for each attraction in list 541 in Fig. 5B.

151. As discussed, it would have been obvious to a POSITA to modify Waytena to have the PCD select the matching attractions *and* choose default “next available” times for each to build a schedule of attractions and times that the party can choose to “reserve” in one step. Such a system performs the same operations discussed above with respect to Figs. 5B, 5C, and 5E, but also presents the full list of matching attractions and times as a schedule that a party can “reserve” with one click:

## Selected Matching Attractions and Times

| ATTRACTIONS:    |        |
|-----------------|--------|
| DRAGON MOUNTAIN | 12:15p |
| PYRAMID DROP    | 1:00p  |
| WATER FLUME     | 1:30p  |
| THE RAT         | 2:00p  |
| TIME TRAVEL     | 2:45p  |
| .               |        |
| .               |        |
| .               |        |

INFO

RESERVE

CHANGE PERSONAL DATA

(*Id.*, Fig. 5B (as modified and annotated).) As shown, this simplifies the process, as the PCD presents an itinerary of selected attractions that the party can reserve in one step. The party would get the same attractions at the same times with this approach as if they made individual selections and followed the process of Figures 5B-5E.

**1[d]**: *a presentation means in communication with said computer, said presentation means able to receive said itinerary from said computer and present said itinerary to said party,*

152. Waytena discloses claim 1[d]. Waytena’s PCDs include a “user interface 201” that receives the party’s schedule of “current reservations” (“itinerary”) from the PCD and presents such schedule to the party:

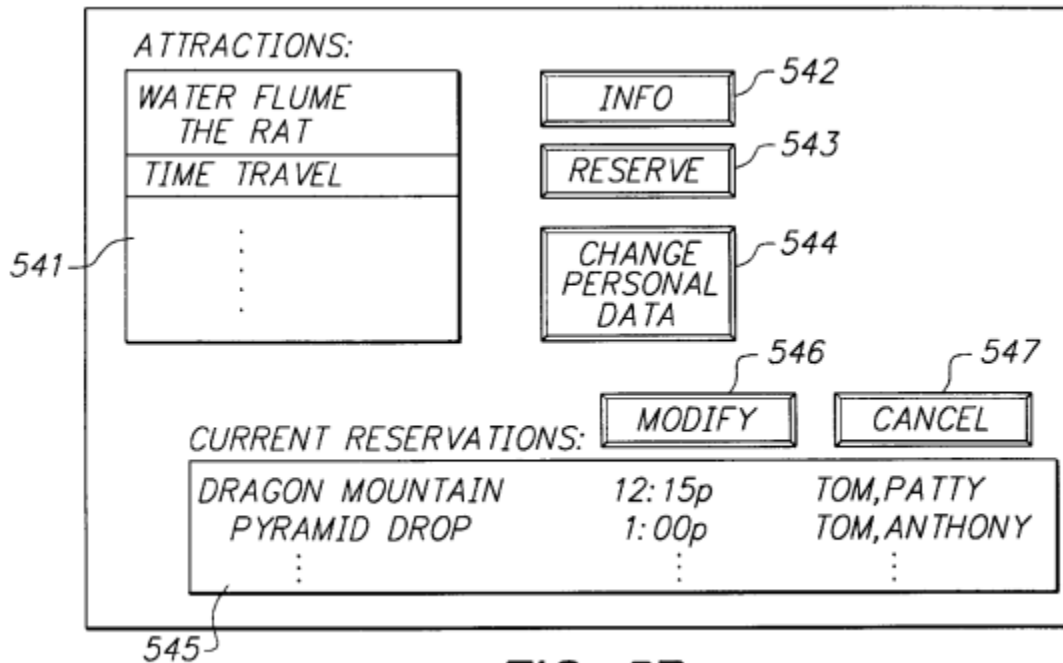


**FIG. 5B**

(*Id.*, Fig. 5B, 14:13-20; *see also supra* ¶¶134-137 (Ground 3, claim 1[pre]).)

153. In particular, “user interface 201” is implemented as a “touch-sensitive screen 109.” (Waytena, 6:58-67.) Waytena further discloses that “screen 109” is in communication with the processor, “CPU 106,” of the PCD:

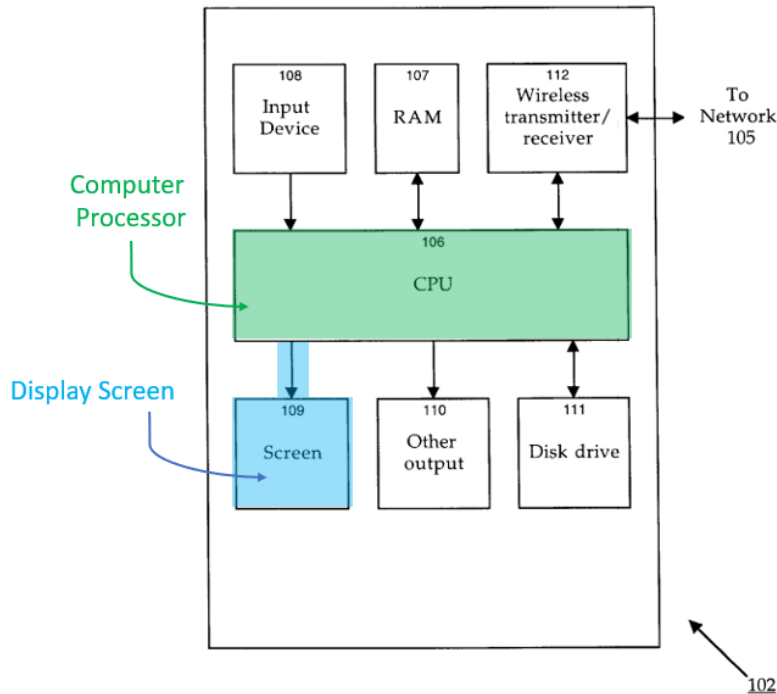


**FIGURE 1A**

(Waytena, Figure 1A (annotated), 6:59-7:8.) Thus, the PCD display is in communication with the computer processor in the PCD.

**1[e]: whereby said itinerary is customized for said party.**

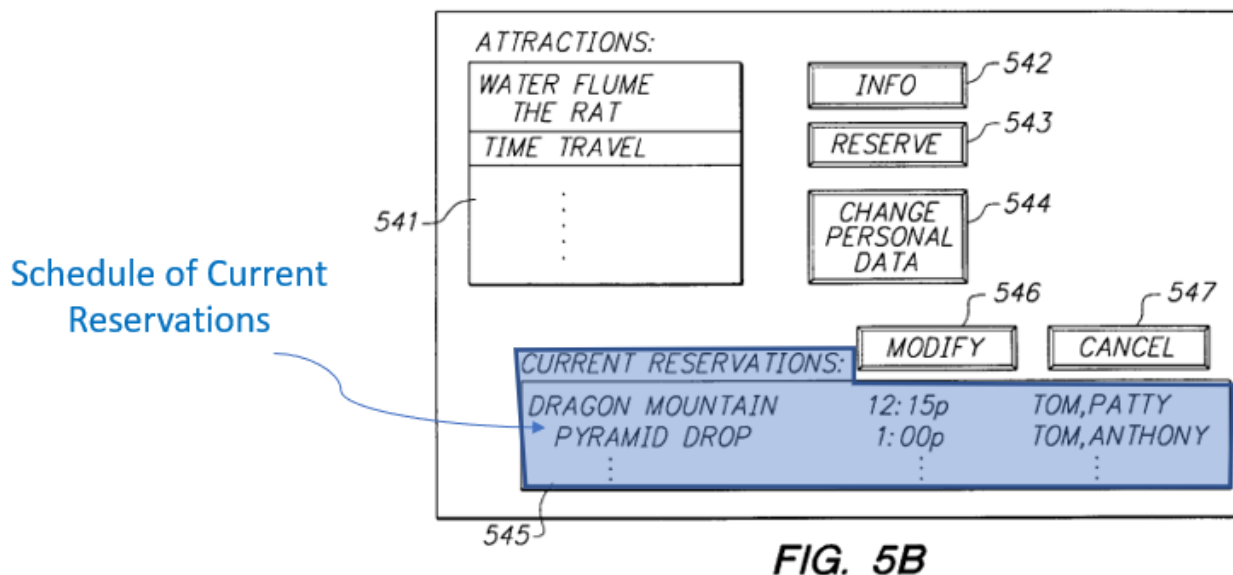
154. Waytena discloses claim 1[e]. Waytena discloses that each individual PCD is able to create a custom list of attractions for a party and her group to visit at different times in a theme park based on the party's personal information.

(Waytena, *Id.*, 14:13-24; *see also* 5:59-6:15, 7:2-8:67, 11:18-61, 12:13-13:28,

15:3-6, Figs. 1-4, 5B.) The itinerary is customized for a party as the party's personal information is taken into consideration when the itinerary is generated.

Waytena depicts this custom "itinerary" in, for example, Figure 5B, where it shows

a schedule of park attractions and times for a party to visit throughout her day at the park:



(*Id.*, Fig. 5B (annotated), 14:20-24.). Moreover, each patron using a Waytena PCD is presented with “a list of attractions that match the particular preferences of the members of the patron’s group or that are in relative proximity to the patron’s current location.” (*Id.*, 14:13-35.) By presenting each individual PCD user attractions to include in the user’s itinerary, based on the user’s preferences and location, the “itinerary” is further customized for users.<sup>7</sup> In other words, each party or each group is getting a different itinerary based on the party or group members’

<sup>7</sup> As explained, it would have been obvious over Waytena to present this list with proposed reservation times for each recommended attraction, without party involvement. *See supra* ¶¶143-151 (Ground 3, claim 1[c]).

information, and as shown in Figure 5B, for a group of multiple members, a customized itinerary includes Tom and Patty going to Dragon Mountain at 12:15 pm, and then Tom and Anthony going to Pyramid Drop at 1:00 pm. Thus, each member of the group can go to different attraction and at different time. The matching function as disclosed in Waytena ensures that where and when each member of the group is going matches the member's personal information, including what he or she likes, i.e., a member that prefers thrill ride will get a ride of this nature, and it would have been obvious for the matching/recommended rides to simply be included as a customized itinerary without any party involvement.

## **2. Independent Claim 3**

155. Claims 3[pre]-3[e] are near identical to claims 1[pre]-1[e]. *See* Appendix A. Therefore, claims 3[pre]-3[e] are rendered obvious over Waytena in view of Herz for the same reasons as described above. *See supra* ¶¶134-154 (Ground 3, claims 1[pre]-1[e]).

## **3. Dependent Claim 4**

*The method of claim 3 wherein said information comprises a preference of said party; wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said preference, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.*

156. As viewed by a POSITA, Waytena renders claim 4 obvious. As discussed, Waytena discloses its “party information” can include preferences like

ride types and its “attraction data” can distinguish a portion of attractions as more desirable with respect to those preferences (e.g., distinguishing thrill rides from kiddie rides). *See supra* ¶¶117-124 (Ground 2, claim 4). For example, Waytena discloses that its PCDs can include “attraction preferences” like “thrill” and “kiddie” rides and compare these against attraction data to provide a “list of attractions that match the particular preferences” of the party. (Waytena, 7:9-31, 13:44-14:35, Fig. 5A.) Regarding attractions being “selected” from this group, claim 4 is similar to claim 1, in that it relates to using party “information” and attraction “data” to indicate rides of interest and select those rides. Claim 4 merely adds a type of “information” to use, namely a “preference”—a type discussed above for claim 1. Claim 4 is thus obvious for the same reasons as above. *See supra* ¶¶143-151 (Ground 3, claim 1[c]).

#### **4. Dependent Claim 5**

***The method of claim 3 wherein said information comprises an attribute of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said attribute, and wherein in step d) at least one attraction from said portion of said first set of attractions is selected for said second set of attractions.***

157. As viewed by a POSITA, Waytena renders claim 5 obvious. As discussed, Waytena’s system stores party information that can include “attraction *preferences*,” such as “thrill rides” or “kiddie rides,” which can be input through check boxes on a user interface of the PCDs:

WELCOME TO

PLEASE ENTER THE FOLLOWING INFORMATION FOR EACH MEMBER OF YOUR GROUP.

NAME  SEX

AGE  YEARS

HEIGHT  FEET  INCHES

WEIGHT  LBS.

HEALTH CONDITIONS: (CHECK ALL THAT APPLY)

☐ BACK CONDITION ☐ VERTIGO

☐ HEART CONDITION ☐ WHEELCHAIR

☐ PREGNANT ☐ HEARING DISABILITY

☐ NURSING ☐ OVERWEIGHT/LARGE

RIDE PREFERENCES: (CHECK ALL THAT APPLY)

☐ THRILL RIDES ☐ FRONT SEAT

☐ EDUCATIONAL ☐ REAR SEAT

☐ SHOWS ☐ AISLE SEAT

☐ KIDDIE RIDES

CANCEL

NEXT

DONE

519

520

521

522

523

Ride preferences of the party

FIG. 5A

(*Id.*, Fig. 5A (annotated), 7:9-31, 13:44-14:35, Fig. 2A.) These “preferences” are an “attribute” of the party that distinguishes a portion of the first set of attractions as being more desirable. *See supra* ¶156 (Ground 3, Claim 4). For example, where a party indicates a preference for “thrill rides,” this will distinguish among attractions at the park having flags indicating thrill ride characteristics versus rides having flags indicating they are mild and appropriate for small children. (Waytena, 14:13-24) Moreover, as discussed above, the party information further includes “age, height, and weight” and any “health conditions,” which are also attributes of the party (*Id.*, 7:9-28; 13:50-60.) The system compares this age, height, weight, and health information about the parties to corresponding age, height, weight and health restrictions in the attraction descriptions to “determine the validity of reservation requests.” (*Id.*, 7:29-31, 8:26-31, 14:56-15:38 (noting that a module in

the PCD “may also check, for example, that members of the group are of sufficient age and height to enjoy the selected attraction *by comparing information in patron information storage 202 with the description data of the attraction in the attraction description storage 205.*”), 16:52-17:9, Figs. 4, 5D.) Thus, a POSITA would understand that attractions where the age, height, weight, and health restrictions would be met are more desirable, and could be included in the itinerary, as compared to attractions where the age, height, or weight restrictions were not met and requested reservations would be denied. Moreover, it would have been obvious over Waytena to “select” such matching attractions for inclusion in the party’s itinerary, without party involvement, for the same reasons discussed above for claim 1. *See supra* ¶¶143-151 (Ground 3, claim 1[c]).

## **5. Dependent Claim 8**

*The method of claim 3 wherein [1] said data further comprises a scheduled time corresponding to a first attraction of said second set of attractions, [2] wherein in step d) said software adds said scheduled time in association with said first attraction to said itinerary, and [3] wherein step f) further includes presenting said scheduled time in association with said first attraction.*

158. As viewed by a POSITA, Waytena renders obvious claim 8. Waytena discloses that the PCDs enable users to create reservations for particular attractions at particular times through the user interface. (Waytena, 14:36-51.) A “request filtering and generation module” in the PCD first determines if the reservation request for an attraction is valid, including by comparing party information such as

age and height to any age and height restrictions for the attraction. (*Id.*, 14:52-15:50, Figs. 3-4; *see also id.*, 8:32-9:58.) If a request is valid, then it is transmitted to an “attraction computer 101,” which verifies the request and transmits a proposed reservation time back to the PCD which can then be confirmed by the user for inclusion in the party’s reservation records. (*Id.*, 9:1-20, 15:47-18:11.) All reservations made for a group are stored in as “local reservation records 244” in “local reservation information 206” in the PCD, and can be displayed as a “list 545 of previously-made reservations” that includes attraction identification and scheduled times for each attraction on the user interface:

206

| 422<br><i>Request ID</i> | 423<br><i>Attraction ID</i> | 241<br><i>Time</i> | 242<br><i>Who</i> | 243<br><i>Flags</i> |
|--------------------------|-----------------------------|--------------------|-------------------|---------------------|
| 4170001                  | 1005594                     | 12:15              | 1,2,3,4           | 100F                |
| 4170002                  | 1009813                     | 13:00              | 1,2               | 104C                |
| 4170003                  | 1004629                     | 13:05              | 3,4               | 108E                |
| ...                      | ...                         |                    |                   |                     |

244

**FIG. 2C**

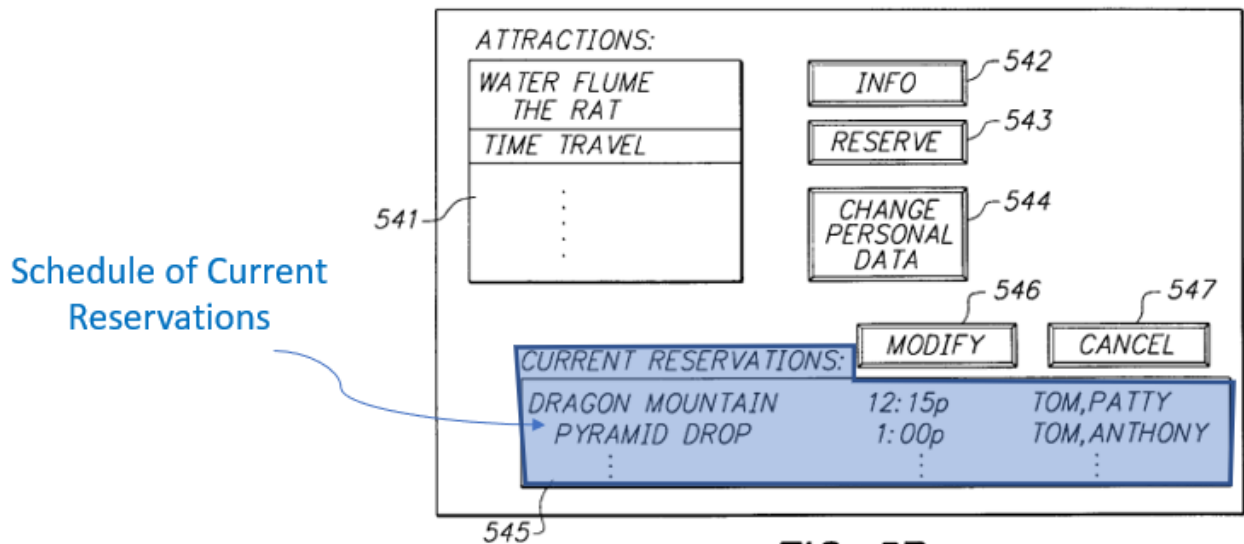


FIG. 5B

(*Id.*, Figs. 2C, 5B (annotated) 9:21-58, 14:13-20, 17:66-67; *see also id.*, 4:38-41.)

As shown above, the reservation records 206 include information on the reserved attractions and visit times, and which guests have each reservation. (*Id.*, 9:33-58, Fig. 2C.) This information on scheduled reservations, including attraction name, scheduled time, and names of the members of the group attending, is displayed to the party on the display screen 540 of the PCD user interface. (*Id.*, Fig. 5B.)

Moreover, the information regarding scheduled reservation times is also stored in the “virtual queue 210” of the attraction computers. (*Id.*, 10:4-67, Fig. 2D.)

## 6. Dependent Claim 10

***The method of claim 3 wherein [1] in step d) said software further adds to said itinerary a first scheduled time corresponding to a first attraction of said second set of attractions, and [2] adds a second scheduled time corresponding to a second attraction of said second set of attractions, [3] said first scheduled time and said second scheduled time being selected so that said second scheduled time is at least equal to said first scheduled time plus a time required between***

*attractions, whereby said second attraction is scheduled to follow said first attraction.*

159. As viewed by a POSITA, Waytena renders claim 10 obvious.

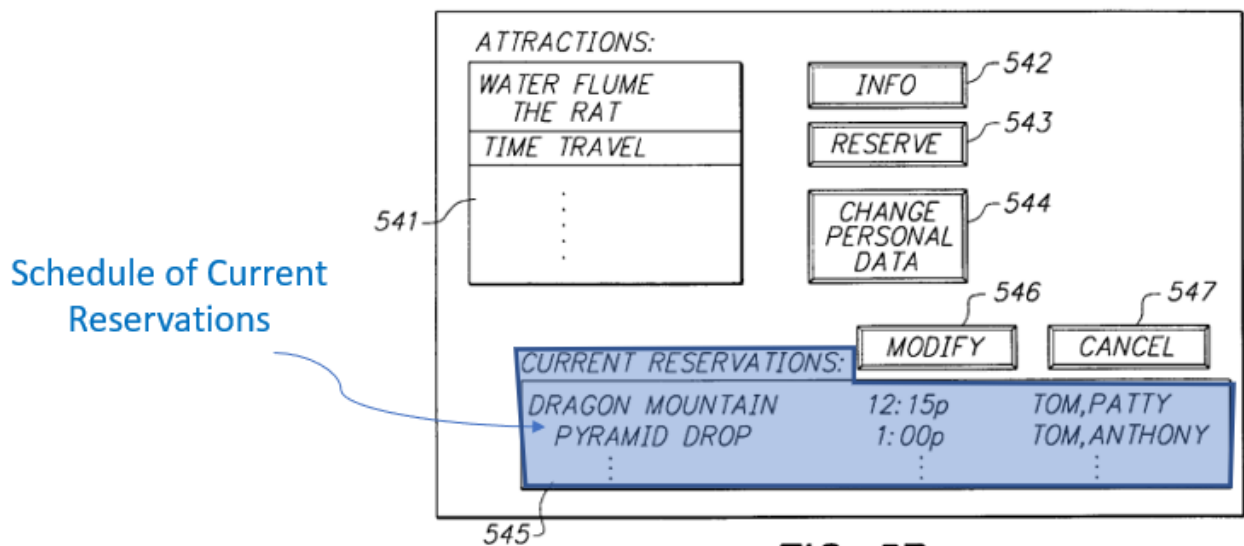
Waytena discloses its PCDs add a “first scheduled time corresponding to a first attraction.” *See supra* ¶158 (Ground 3, claim 8). Waytena further discloses adding scheduled times for additional attractions. *Id.* For example, Waytena discloses that all reservations made for a group are stored in as “local reservation records 244” in “local reservation information 206” in the PCD, and displayed as a “list 545 of previously-made reservations”:

206

|            |               |       |         |       |
|------------|---------------|-------|---------|-------|
| 422        | 423           | 241   | 242     | 243   |
| Request ID | Attraction ID | Time  | Who     | Flags |
| 4170001    | 1005594       | 12:15 | 1,2,3,4 | 100F  |
| 4170002    | 1009813       | 13:00 | 1,2     | 104C  |
| 4170003    | 1004629       | 13:05 | 3,4     | 108E  |
| ...        | ...           |       |         |       |

244

**FIG. 2C**



(Waytena, Figs. 2C, 5B (annotated) 9:21-58, 14:13-20, 17:66-67; *see also id.*, 4:38-41.) That is, Waytena discloses adding scheduled times not just for a “first attraction,” but for all attractions that a user is offered. As shown in Figure 5B above, for example, a second attraction “Pyramid Drop” is added at a “second scheduled time” of “1:00p” after a first scheduled time of “12:15p” for “Dragon Mountain.” (Waytena, Figs. 2C, 5B, 9:21-58, 14:13-20, 17:66-67; *see also id.*, 4:38-41.)

160. Waytena further discloses that its system takes into account “a time required between attractions” when generating and confirming reservations for a party. In particular, Waytena discloses that “[p]rocessor 209 then determines 710 minimum travel time for the patron to get to the requested attraction, based on GPS data comparing coordinates of the patron (or where the patron will be after fulfilling prior reservations) and of the attraction, together with estimated travel

speed of the patron, or based on manually entered information. Processor 209 also optionally checks whether the patron will have sufficient time to reach any previously-made reservations that occur after time Req (based on distances between attractions). If necessary, timeReq is adjusted to account for travel time.” (Waytena, 23:3-56, *see also* 24:25-37, 25:5-8.)

161. It would have been obvious for Waytena’s PCD to take into the travel time required between attractions when selecting recommended attractions and attractions times. Without considering travel time, the system would not work as parties would not be able to follow the schedule and arrive at each attraction on time. Parties would either have to skip some of the reserved attractions or always be in a rush to get to every attraction, which is against the goals of Waytena to “increas[e] the number of attractions or services visited by the patrons, thereby increas[e] their enjoyment of the facility.” (Waytena, 25:21-29.)

## **7. Dependent Claim 12**

***The method of claim 3, wherein said first set of attractions comprises a plurality of attractions selected from the group consisting of ride, show, movie, theater, restaurant, exhibit, display, presentation, store, tour, parade, museum, room, area, fountain, restroom, hiking trail, picnic site, autograph session, historic recreation, beach, viewpoint, photo opportunity, lookout, fireworks display, attraction within a district, attraction within a city, attraction within a region, attraction within a state, and attraction within a country.***

162. As viewed by a POSITA, Waytena renders claim 12 obvious.

Waytena discloses that the “first set of attractions” can include “a number of

attractions such as rides” in an “amusement park. (Waytena, 4:58-67, Figs. 2B, 5B.) Waytena further discloses that its system can be applied to “other environments involving patron reservations for distributed services, such as for example, shows, restaurants, sporting events, and the like.” (*Id.*)

## **8. Dependent Claim 13**

***The method of claim 3 further comprising the steps of: g) providing an access control system to a first attraction of said second set of attractions; and, h) admitting said party to said first attraction with said access control system, said access control system operating in response to at least a portion of said itinerary corresponding to said first attraction.***

163. As viewed by a POSITA, Waytena renders claim 13 obvious.

Waytena discloses that when “a patron arrives at the attraction in fulfillment of a reservation, a sensor detects patron's arrival. The patron and his or her group preferably enter by way of a separate, entry dedicated for users of system 100.”

(Waytena, 21:42-55.) Waytena’s system includes “[v]arious mechanisms at or near this entry may be employed to detect the patron's arrival at the attraction” including by transmitting a signal to the PCD to identify itself, with the PCD then providing its PCD-ID “thereby signaling arrival of the patron.” (*Id.*) This “arrival signal is received and sent to attraction computer 101, and the reservation for that particular patron is identified in the virtual queue 210 using the PCD-- ID and REQUEST-- ID.” (*Id.*) That is, the separate, dedicated entry is an access control system whereby users are only allowed entry through the dedicated entry when the system detects a

PCD, and a reservation for patrons associated with that PCD is identified in the “virtual queue 210” of the attraction.

#### **9. Dependent Claim 14**

***The method of claim 3 wherein said computer comprises at least a first member selected from the group consisting of a portable computer, a handheld computer, a kiosk computer, a general purpose computer, and a desktop computer.***

164. As viewed by a POSITA, Waytena renders claim 14 obvious.

Waytena discloses that the PCDs are “small, hand-held portable computers including a rechargeable battery (not shown), microprocessor or CPU 106, display screen 109, auxiliary output device 110 such as audio speaker or vibration mechanism, input device such as a pen-based input device 108, RAM 107, and storage device such as a disk drive 111.” (Waytena., 5:59-6:15, 6:59-7:8; *see also supra* ¶¶134-137 (Ground 3, claim 1[pre])).

#### **10. Dependent Claim 16**

***The method of claim 3 wherein said presentation means comprises a display selected from the group consisting of a screen, a touchscreen, and a scrolling display.***

165. As viewed by a POSITA, Waytena renders claim 16 obvious.

Waytena discloses that the PCDs include a “display screen 109.” (Waytena, 5:59-6:15.) In particular, Waytena discloses that the “user interface 201,” which displays the user’s reservation schedule, is implemented as a “touch-sensitive screen 109.” (Waytena, 6:58-67.) And, Waytena specifies that this user interface 201 includes “scrollable” lists of available attractions and previously made

reservations. (*Id.*, 14:13-24.) Thus, Waytena's display includes at a "screen," and in particular a touchscreen, for users to view their sequence of rides. (*Id.*, Figs. 1, 5A-5D.)

## **11. Dependent Claim 17**

***The method of claim 3 wherein in step f) at least a portion of said itinerary is announced audibly by said presentation means.***

166. As viewed by a POSITA, Waytena renders claim 17 obvious. Waytena discloses that its PCDs include, in addition to the display screen presenting the user with the list of current reservations, an "auxiliary output device 110 such as audio speaker." (Waytena, 5:59-6:15.) This audio speaker may be used to announce portions of the itinerary to the party, in the form of audible message alerts. For example, Waytena discloses that when "a reserved time is approaching, the PCD in one embodiment alerts the patron to remind him or her to proceed to the attraction," and that the alert "may take the form of an audible message." (Waytena, 3:39-43, 13:29-33, 18:38-62 ("The reservation alert issued by module 204 may take the form of a visual indication on user interface 201, optionally accompanied by an auditory indication such as a beep, voice message, or other distinctive sound."))

## **12. Dependent Claim 18**

***The method of claim 3 further comprising the step of: g) providing a reservation computer in communication with said computer, said reservation computer providing an indication whether said a first attraction is available; wherein in step d) said software excludes said first attraction from said second set of***

***attractions when said reservation computer indicates said first attraction is unavailable.***

167. As viewed by a POSITA, Waytena renders claim 18 obvious. *See supra* ¶¶125-129 (Ground 2, Claim 18). Again, Waytena discloses a “reservation system” for attractions at, for example, an amusement park. (Waytena, 5:1-12.) Waytena’s system includes a “plurality of attraction computers 101... each associated with a particular attraction. In one embodiment these attraction computers are implemented as components of a single computer system or group of computer systems... In another embodiment, each attraction computer is implemented as a separate computer and may be physically disposed at or near its associated attraction.” (*Id.*) These attraction computers include “attraction information storage 213” that “maintains current information describing the particular attraction” including “***current status 266 of the attraction***, for example, OPERATING, CLOSED, SCHEDULED MAINTENANCE, PAUSED, and the like.” (*Id.*, 11:18-61.)

168. The “PCDs” communicate with the attraction computers and allow parties to transmit reservation requests. (*Id.*, 5:59-6:15, 7:2-8:67, 12:13-63, Figs. 1-4, 6-7.) These reservation requests are received by a reservation “request processor 209” in the attraction computer, which determines whether the requested reservation is available. (*Id.*, 12:38-63.) If request processor 209 determines the attraction is unavailable, “based on attraction information stored in storage 213

(such as, for example, operating hours for the attraction), virtual queue 210 containing information describing pending reservations, and physical queue monitor 103 which provides information describing the physical queue for the attraction,” it “rejects” the request and sends a message to the PCD information the “patron that the attraction is **unavailable**.” (*Id.*, 11:18-61, 12:38-49; 16:56-17:32, 19:20-60, 21:6-24, Figs. 2, 6.) The rejection message may include “a reason code” informing the patron “as to the reason for unavailability (for example: attraction closed, reservation time not available, and the like).” (*Id.*, 21:6-24, 16:56-17:32.) That is, if the reservation request processor determines that the attraction is unavailable, it will not be included or available for selection in the patron’s itinerary.

### 13. Dependent Claim 19

***The method of claim 3 wherein said data indicates a first attraction of said first set of attractions, said first attraction having excessive demand, and wherein said software is less likely to select said first attraction in step d), whereby demand for said first attraction is moderated.***

169. As viewed by a POSITA, Waytena renders claim 19 obvious.

Waytena discloses that its system keeps track of attraction data, including “current state and reservation status of the attraction,” as well as “how many people are in the physical queue for the attraction,” and that this data is used to “estimate current and future availability of the attraction for purposes of making electronic reservations.” (Waytena, 5:33-58, 12:38-59 (describing that an attraction is

determined to be “unavailable” based on virtual queue existing reservations and the current physical queue.).) Thus, where the reservation statute and physical queue data indicate the attraction is no longer available for a requested reservation, this data indicates “excessive demand” for that attraction. Because this attraction is “unavailable,” it would be less likely to be selected for inclusion in the party’s itinerary of reserved attractions. And, where no more reservations are generated, the demand for that attraction is moderated.

#### **14. Dependent Claim 20**

*The method of claim 3 further comprising the steps of: g) providing a storage accessible to said computer; and, h) recording at least a portion of said itinerary corresponding to a first attraction of said first set of attractions in said storage, thereby accumulating in said storage a directed demand corresponding to at least said first attraction.*

170. As viewed by a POSITA, Waytena renders claim 20 obvious.

Waytena discloses that its PCDs include “local reservation storage 206” in which the PCD maintains “information describing pending and confirmed reservations for the patron” corresponding to reserved attractions. (Waytena, 9:21-32.) Moreover, PCDs can communicate with attraction computers 101 through “communications module 207,” and Waytena discloses that the attractions computers include a “virtual queue 210” that maintains “a list of pending and confirmed reservations for the attraction.” (*Id.*, 10:4-53.) Thus, the PCDs have access to storage in both the PCDs themselves and in the attraction computers that accumulate a “directed

demand,” e.g., the number of parties its system is directing to each attraction. *See also supra* ¶169 (Ground 3, claim 19) (discussing Waytena tracking demand for attractions in determining reservation availability).

### **15. Dependent Claim 21**

***The method of claim 3 further comprising the steps of: g) providing a reservation computer in communication with said software; and, h) making a reservation with said reservation computer for said party for a first attraction of said second set of attractions; whereby said reservation for said party is accessible to users of said reservation computer.***

171. As viewed by a POSITA, Waytena renders claim 21 obvious. *See supra* ¶¶130-132 (Ground 2, claim 21) (discussing how Waytena discloses claim 21).

### **16. Dependent Claim 23**

***The method of claim 3, [1] wherein said data further comprises a first set of messages, [2] each of said first set of messages selected from the group consisting of a marketing message, a discount offer, and a recommendation, [3] each of said first set of messages having corresponding conditions, [4] each of said first set of messages being associated with a corresponding first attraction of said first set of attractions, said software being further able to determine whether said conditions are met, said itinerary further comprising a second set of messages, said method further comprising the step of: g) selecting said second set of messages with said software such that said second set of messages consists of at least one of said first set of messages for which the corresponding conditions are met; wherein in step f) each of said second set of messages is provided to said party in conjunction with said itinerary; whereby each of said second set of messages message is available at an appropriate time.***

172. As viewed by a POSITA, Waytena renders claim 23 obvious.

173. Waytena discloses that its PCDs can send “messages” to the parties, including a set of “alert” messages from information stored “locally in PCD 102”

about pending and confirmed reservations of the patron. (Waytena, 9:21-32, 9:59-62, 13:29-32, 18:38-19:8; *see also* 3:39-55.) Specifically, these messages include “recommendations” to the user to proceed to an attraction when a reservation for that attraction is approaching. (*Id.*, 3:39-55, 9:21-32, 9:59-62, 13:29-65, 18:38-19:8.)

174. These alert messages recommending the user proceed to reserved attraction have certain “conditions” and are associated with the particular reserved “attractions.” For example, the transmission of the alert messages is “conditioned” on “a reserved time approaching.” (*Id.*, 3:39-55, 13:29-65, 18:38-19:8.) The “condition” may be an amount of time before the reservation, which can be a specified amount of time, such as 5, 10, or 15 minutes, or it can dynamically varied based on current location and travel time.) (*Id.*) These alert messages are associated with attractions, as each alert is specific to the attraction for which a reservation time is approaching. (*Id.*, 3:39-55, 9:21-32, 9:59-62, 13:29-65, 18:38-19:8.)

## **17. Dependent Claim 24**

***The method of claim 3, wherein said software comprises a decision making routine responsive to at least a portion of said data corresponding to a first attraction of said first set of attractions and at least a portion of said information,***

***said decision making routine performing at least a portion of step d) with respect to said first attraction.***

175. As viewed by a POSITA, Waytena renders obvious claim 24.

Waytena's PCD are "programmed with specific software to configure them to operate" (e.g., "decision-making routines"). (Waytena, 6:5-7, 6:58-7:8, Fig. 2) The software in uses attraction data and party information to determine which attractions to select for the party's itinerary. For example, Waytena discloses that the PCD operates so that "[i]f desired, the patron may also be presented with a list of attractions that match the particular preferences of the members of the patron's group." (*Id.*, 14:20-24.) Thus, Waytena teaches using software operations to decide which attractions in a park to offer to a party, based on both attraction data and party preferences. *See supra* ¶¶143-151 (Ground 3, claim 1[c]) (discussing Waytena selecting matching attractions for a party).

## **18. Dependent Claim 25**

***The method of claim 3, wherein a portion of said data corresponding to a first attraction of said first set of attractions is representative of at least one member of the group consisting of expected queue length, actual queue length, expected attendance, location of an entrance, location of an exit, showtime, mode of operation, routes to other attractions of said first set of attractions, routes from said other attractions, travel time to said other attractions, capacity, theoretical hourly ride capacity, holding capacity, duration, continuous running, availability, a scheduling factor, an acceptance factor, an admission requirement, an admission class, an admission grade, operating hours, inoperation, and wheelchair accessibility.***

176. As viewed by a POSITA, Waytena renders claim 25 obvious. For example, Waytena's system includes data on:

- attraction age, height, and weight related restrictions (“admission requirement”)—(Waytena, 8:10-15, Fig. 2B);
- “operating hours” of the attraction (*id.*, 8:22, Fig. 2B); and
- “location” information specifying the location of attraction in the park. (*id.*, 8:16-19, Fig. 2B.)

*See also supra* ¶¶138-139 (Ground 3, claim 1[a]) (discussing attraction data).

**D. Ground 4: Waytena in view of Herz**

177. I have reviewed Herz. Herz is titled “System and Method for Scheduling Broadcast of and Access to Video Programs and Other Data Using Customer Profiles.” Herz was filed on November 29, 1994, and issued on May 26, 1998. I understand that Herz is prior art at least under pre-AIA 35 U.S.C. §102(b). My review of the ’983 Patent file history shows that Herz was not considered during prosecution of the ’983 Patent.

178. As viewed by a POSITA, Waytena in view of Herz renders obvious claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25. Waytena alone discloses or renders obvious claims 1, 3-5, 8, 10, 12-14, 16-21, and 23-25. *See supra* ¶¶ 133-176 (Ground 3). To the extent Waytena is determined not to disclose or render obvious

certain elements of claims 1 and 3 discussed below, such would have been obvious over Waytena in view of Herz.<sup>8</sup>

179. Regarding claims 1[c], 1[e], and 3[c]-[e], Waytena in view Herz renders obvious Waytena's PCD presenting an itinerary, or schedule, of computer-selected attractions, without the party having to select which attractions to include.

180. Herz, like Waytena, is directed to a system that assists parties in identifying desirable content and scheduling that content for the party. (Herz, Abstract, 4:18-58.) In particular, Herz relates to a computer system that assists parties in identifying content that would be most desirable by automatically selecting content that matches the party's profile. (Herz, Abstract; 1:38-47, 4:18-58, 47:37-52.) Herz teaches this minimizes the need for parties to manually search for and select desired content, with the computer automatically selecting and scheduling matching content using an "agreement matrix." (*Id.*, 1:38-47, 4:18-5:22, 19:5-65, 22:7-23:18.) For example, Herz's computer automatically selects and schedules movie and video programs for a party by providing a customized

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<sup>8</sup> For clarity, the remaining elements of claims 1, 3-5, 8, 10, 12-14, 16-21, 23, and 25 are disclosed or rendered obvious by Waytena, and thus obvious over Waytena in view of Herz, because Waytena, as modified by Herz, would not change with respect to these elements.

“virtual channel” comprising a computer-selected list of video and movie programs that “most closely match the party’s preferences.”<sup>9</sup> (Herz, 4:18-58, Abstract.) To do so, Herz’s computer selects programs for time slots that match a customer’s profile, creating “a collection of only those video programs having *content profiles* which best match the *customer’s profile* and hence are most desirable to the customer during the relevant time frame.” (*Id.*, 4:18-58, 4:59-5:21, 6:53-7:55, 22:7-23:18, 24:53-25:30, Figs. 1-3.) That is, Herz’s computer automatically generates a custom schedule of programs for the party, without the party having to select among which recommended programs to include in the schedule. (*Id.*, 19:5-65, 22:7-23:18, 24:56-25:30, 2:65-3:16, 10:6-20.)

181. The “customer profiles” may be determined “from customer questionnaires, customer demographics, relevance feedback techniques, default profiles, and the like.” (*Id.*, 4:40-5:52, 9:61-13:54.) Similarly, “content profiles” are “determined from questionnaires completed by ‘experts’ or some sort of customer’s panel, are generated from the text of the video programs themselves, and/or are determined by adopting the average of the profiles of those customers

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<sup>9</sup> The ’983 Patent contemplates that movie and video programs count as “attraction” as Claim 12 of the ’983 Patent recites that said first set of attractions include “movie.”

who actually watch the video program.” (*Id.*, 4:46-51, 13:12-39.) The customer and content profiles include “characteristics” defining the characteristics of video programming the customer may be prefer. (*Id.*, 9:61-10:67, 11:30-58.)

182. It would have been obvious to apply Herz to Waytena, such that in Waytena the party does not have to select which attractions to attend and, instead, can enjoy automatically-scheduled content selected by the computer that matches the party’s profile. Waytena and Herz both disclose systems that obtain party information and compare it to content data to assist users in finding desirable content (or attractions), and both determine how to perform targeting based on user preferences, which is commonly used in marketing, advertising, and sales. For example, Waytena already presents a “list of attractions that match the particular preferences of the members of the patron’s group.” (*Id.*, 14:13-24; *see also* 15:3-6.) Herz similarly teaches generating a list of recommended content matching a party profile, simply adding that the computer can also select such content into a customized schedule, rather than requiring the party to confirm including each content item. Thus, a POSITA would have had a reasonable expectation of success in implementing Herz’s teachings of using a computer to select and schedule recommended content in Waytena, which already includes all information necessary to recommend attractions that match party information and create reservations for those recommended attractions at particular times. (Just like

parties looking for movies in Herz no longer having to “channel surf” to manually select movies, applying Herz’s teaching to Waytena would result in parties in Waytena no longer having to manually select each attraction they want to attend during their visit. This would give the party the option to simply accept an entire list of attractions *and* proposed times (*e.g.*, a customized itinerary), without having to schedule reservations for each individual attraction (*e.g.*, if the user wanted to use the entire recommended list).

183. Moreover, Herz explains its system is not limited to matching video programs and can be applied to “to numerous other areas of technology in which it is desirable to assist the customer in the selection of a data service which best meets that customer's needs.” (Herz, 8:13-23, 47:19-52:5) For example, Herz’s computer selections of content matching a party’s profile can also be used to schedule other things, like “music videos and... the transmission of music.” (*Id.*, 50:55-64.) Modifying Waytena’s PCDs to provide a schedule of matching attractions for a party, without the party having to make such selections, is just an application of the known technique of Herz’s system to a different type of attraction (rides instead of movies) to meet “customer[] needs.” (*Id.*, 8:13-23, 47:19-52:5.) Thus, a POSITA would have had a reasonable expectation of success in implementing Herz’s teachings of using a computer to select and schedule recommended content in Waytena, which already includes all information

necessary to recommend attractions that match party information and create reservations for those recommended attractions at particular times.

184. Waytena already discloses that information about both customers and attractions are collected and stored in profiles, and Herz just adds that this information can be used to select and recommend content (attractions) and a schedule of content times. Adding this to Waytena's system would have been the use of a known technique to improve a similar device.

185. A POSITA would have been motivated to apply Herz's teachings to Waytena, such that Waytena's system could recommend not just matching attractions the party can manually select, but a completed schedule of attractions that is customized to match the user's preferences and profile. This would enable Waytena's system to take the patron information and the information about the attractions, and create a recommended itinerary with matching attractions on the user interface without party involvement. This would provide the user with a personalized itinerary, or schedule, at the outset, and would eliminate the need for the party to manually select and reserve individual attractions, which could be time consuming. Furthermore, Herz also teaches that it is "designed to help the customer ... with minimal effort, the information he or she is most interested in" (*Id.*, 1:44-47) and a POSITA would recognize that Herz's teachings can be applied

to help Waytena's users to find the attractions they are most interested in, with minimal effort.

186. Waytena was also ready for such improvement, and adding Herz's teachings would yield predictable results. As discussed, Waytena already provides a list of recommended attractions that match party preferences, creates a schedule of reserved attractions for a party, and displays these reserved attractions on the party's PCD. Herz simply adds that attractions (content) matching the party profile can be both selected *and* put into a schedule for the party, without the user needing to manually select anything. A POSITA would recognize that this would simplify Waytena's system, reducing the number of steps and user involvement needed to arrive at the ultimate schedule of matching attractions for the user to attend. This would also eliminate the need for users to make multiple, separate reservations and the risk of not being able to reserve certain attractions, due to, for example, conflicts with other reservations. This would further improve Waytena's system and help it to meet its goals of achieving "greater patron satisfaction, increased business, and profitability." (Waytena, 25:16-29.)

**E. Ground 5: Waytena (Alone or as Modified by Herz) in Further View of Sim Renders Claim 7 Obvious**

***The method of claim 3 wherein said information comprises a privilege of said party, wherein said data distinguishes a portion of said first set of attractions as being more desirable with respect to said privilege, and wherein in step d) at least***

***one attraction from said portion of said first set of attractions is selected for said second set of attractions.***

187. As viewed by a POSITA, Waytena (alone or as modified by Herz) in further view of Sim renders claim 7 obvious. As discussed, in Sim the party information can include “privileges” that a party may have, with Sim disclosing, for example, “different classes of guests depending on the fee paid” and parties being able to pay premiums for a “range of *privileges*.” (Sim, 3:23-27, 34:22-32, 37:3-4.) *See also supra* ¶¶85-87 (Ground 1, claim 7). Further, a POSITA would understand that in Sim users who have a “privilege” associated with them can receive priority over others, when it comes to having certain attractions included in their sequence of queues. *Id.*

188. As noted above, Waytena and Sim are in the same field of theme park queue management, aim to achieve the same goals, including improving customer “satisfaction” and allocation and use of park resources, and include similar systems that maintain similar information, and a POSITA would have been motivated to use the teachings of Sim in the system of Waytena. *See supra* Ground 2, claim 4. As such, selecting rides that match with a party having a particular privilege or paid class status would have been obvious over Waytena in further view of Sim. Waytena renders obvious selecting attractions that match the preferences of a party. *See supra* ¶¶143-151 (Ground 3, claim 1c) (Waytena); ¶¶177-186 (Ground 4) (Waytena-Herz). It would be obvious to a POSITA, given the teachings of

Waytena and Sim, that the same selection of attractions could be made based on whether a party has a particular class status, priority, or privilege attached to them as taught by Sim. This would have been nothing more than providing the same selection of an attraction as disclosed in Waytena, but with the selection based on the party having paid fees to be a higher “class” of guest, or having a certain privilege or priority attached to them as disclosed in Sim. This would have been nothing more than the simple substitution of one known factor (ride type preference) for another (privilege, or “class” of user, as disclosed in Sim) that is taken into account when selecting attractions for a particular party.

189. A POSITA would have been motivated to modify Waytena to include selecting certain attractions for parties who paid a fee to be in a higher “class” of user, such that they had a privilege or priority attached to them. Parties paying such higher fees would expect something in return—most naturally prioritized access to the most popular or limited attractions. A POSITA would have had a reasonable expectation of success, as just like the selected rides offered that match with a party’s preferences, the system of Waytena could further offer the same itineraries for more popular rides, or rides with limited availability or that require the payment of an extra fee to attend, by first checking whether a party has a privilege or priority attached to their party information.

**F. Ground 6: Waytena (Alone or as Modified by Herz) in Further View of Doi Renders Claims 11, 22 Obvious**

## 1. Dependent Claim 11

***The method of claim 3, [1] wherein said information comprises a third set of attractions previously selected for said party, said third set consisting of an already visited portion and a remaining portion, [2] wherein said party forgoes said remaining portion due to an interruption, [3] wherein in step d) said software selects said second set of attractions as a replacement for said remaining portion, and wherein said second set of attractions substantially excludes said already visited portion, whereby said interruption is overcome.***

190. As viewed by a POSITA, Waytena (alone or as modified by Herz) in view of Doi renders claim 11 obvious. Claim 11 is similar to claim 1, but now specifies that the set of attractions is selected as an adjustment to a previous itinerary (“third set of attractions”) when there has been an “interruption.” Doi, in the same field of planning theme park attendance for a party as Waytena, discloses that where rides have long wait times, it will select replacement rides for parties so as “to take a measure for the waiting time to be shorter.” *See supra* ¶¶91-93 (Ground 1, claim 11) (discussing how Doi discloses Claim 11).

191. Doi and Waytena disclose similar systems, as each include personal devices parties use to schedule attractions and navigate their day at the park, both allow users to reserve attractions to attend, and both provide messages to parties regarding the reserved attractions, including for when a reservation may need to be changed due to an “interruption.” Thus, It would have been obvious to apply Doi’s teachings of selecting “replacement rides” when there has been an interruption to Waytena, such that Waytena’s “software selects said second set of attractions as a

*replacement* for said remaining portion, and wherein said second set of attractions substantially excludes said already visited portion, whereby said interruption is overcome.” In Waytena, a party can be issued an itinerary (“third set of attractions”), and as she proceeds through her day, some attractions will have been visited and some will remain. (*Id.*; *see also* Sim, 23:8-21.) Like Doi, Waytena contemplates that during the day “attraction malfunctions” and “other factors” can necessitate “delay or cancellation of the patron’s place in line” (“interruptions”) can occur. (Waytena, 11:1-17; 19:20-60.) Waytena discloses that to overcome these interruptions, “patrons may initiate changes or cancellations to reservations.” (*Id.*)

192. A POSITA would have been motivated to include a set of replacement attractions, as taught by Doi, when updating Waytena’s itinerary, so as to make up for those attractions the user had to miss because of the interruption, while excluding those already visited. The updated itinerary in Waytena excludes previously-selected rides for which there has been an “interruption” and thus may result in a shortened itinerary for the party. Waytena was thus ready for improvement, and it would have been a simple application of a known method to, as taught by Doi, select “alternative rides” for the user’s updated itinerary in Waytena. Such would continue to result in the party receiving an updated

itinerary—only now that itinerary would predictably include additional rides as a replacement.

## 2. Dependent Claim 22

***The method of claim 3 wherein [1] in step d) said software applies a perturbation to a desirability of a first attraction of said first set of attractions, said perturbation producing a different result for said second set, thereby [2] redistributing a directed demand corresponding to said first attraction to mitigate at least one selected from the group consisting of underutilization of said first attraction, excessive demand for said first attraction.***

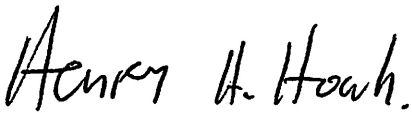
193. As viewed by a POSTIA, Waytena (alone or as modified by Herz) in view of Doi renders claim 22 obvious. As discussed, Doi discloses the additional elements of claim 22. Doi can mitigate attraction “underutilization” and “excessive demand” by “guiding a non-crowded attraction to the customer.” *See supra* ¶¶105-107 (Ground 1, claim 22). Moreover, Doi teaches applying a “perturbation to the desirability” of an attraction, such as by adjusting attraction pricing, to change the likelihood that that attraction may be selected. *Id.*

194. It would have been obvious to apply these teachings of Doi, and have Waytena’s system adjust the desirability of attractions to redistribute demand. *See supra* ¶¶190-192 (Ground 6, claim 11). For example, Waytena and Doi disclose similar systems, address the same problems, and aim to achieve the same results. *Id.* A POSITA would have looked to Doi—and its disclosure of adjusting the desirability of rides that may be of interest to users (*e.g.*, based on age) by changing pricing to mitigate demand—so that users of Waytena would be provided

with rides for their itineraries that match their interests but do not have long wait times. This would not change the ultimate output of the Waytena system, which would continue to provide itineraries as before, but would provide the added benefit of attraction recommendations that both match parties' interests and that would reduce party waiting times.

## **V. CERTIFICATION**

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and, further, that these statements were made with the knowledge that willful false statements and the like are punishable by fine, imprisonment, or both, under Section 1001 of Title 18 of the U.S. Code.

A handwritten signature in black ink that reads "Henry H. Houh". The signature is written in a cursive style with a horizontal line underneath it.

Dr. Henry Houh

Dated: October 11, 2023

### **Appendix A: Independent Claims Comparison Table**

|       | <b>Claim 1</b>                                                                                                                                                                                                                                                                                                                                    | <b>Claim 3</b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [pre] | A system for providing an itinerary to a party, said itinerary comprising a second set of attractions selected from a first set of attractions, said system comprising:                                                                                                                                                                           | A method of providing an itinerary to a party, said itinerary comprising a second set of attractions selected from a first set of attractions, said method comprising the steps of:                                                                                                                                                                                                                                        |
| [a]   | data regarding said first set of attractions;                                                                                                                                                                                                                                                                                                     | a) providing data regarding said first set of attractions;                                                                                                                                                                                                                                                                                                                                                                 |
| [b]   | information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;                                                                                                                                                                                                | b) gathering information about said party, at least a portion of said information distinguishing among said first set of attractions with respect to said data;                                                                                                                                                                                                                                                            |
| [c]   | [1] a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions,<br>[2] said second set of attractions consisting of at least some of said first set of attractions for which said data substantially matches with said information; | c) providing a computer having access to said data and said information, said computer having software that selects said second set of attractions from said first set of attractions;<br>d) selecting said second set of attractions with said software such that said second set of attractions comprises at least one of said first set of attractions for which said data substantially matches with said information; |
| [d]   | a presentation means in communication with said computer, said presentation means able to receive said itinerary from said computer and present said itinerary to said party,                                                                                                                                                                     | e) providing a presentation means able to receive said itinerary from said computer; and,<br>f) presenting said itinerary to said party using said presentation means;                                                                                                                                                                                                                                                     |
| [e]   | whereby said itinerary is customized for said party.                                                                                                                                                                                                                                                                                              | whereby said itinerary is customized for said party.                                                                                                                                                                                                                                                                                                                                                                       |

## **APPENDIX B**

### **Material Considered**

| <b>Exhibit No.</b> | <b>Description</b>                                        |
|--------------------|-----------------------------------------------------------|
| 1001               | U.S. Patent No. 7,212,983 ( “ <b>’983 Patent</b> ” )      |
| 1002               | File History for the ’983 Patent                          |
| 1003               |                                                           |
| 1004               | Curriculum Vitae of Dr. Henry Houh                        |
| 1005               | WIPO Patent Publication No. 97/18534 (“ <b>Sim</b> ”)     |
| 1006               | U.S. Patent No. 6,938,066 to Doi (“ <b>Doi</b> ”)         |
| 1007               | U.S. Patent No. 5,978,770 to Waytena (“ <b>Waytena</b> ”) |
| 1008               | U.S. Patent No. 5,758,257 to Herz (“ <b>Herz</b> ”)       |