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EXAMINER

POND, ROBERT M

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3684

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 14/057,672	Applicant(s) MIKKELSEN ET AL.	
	Examiner ROBERT POND	Art Unit 3684	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/13/14 (RCE).
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1,3-22 and 26-28 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1,3-22 and 26-28 is/are rejected.
- 8) ☐ Claim(s) _____ is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date 11/17/14.
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 4) ☐ Other: _____.

DETAILED ACTION

The present application is being examined under the pre-AIA first to invent provisions.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 November 2014 has been entered.

Priority

The declaration filed on 07 April 2014 under 37 CFR 1.131(a) is sufficient to overcome the Kontio reference. The effective priority date for subject matter pertaining to orthogonal frequency division multiplex (OFDM) is prior to 6 July 2001. The effective priority date for claims 21, 22 and 26-28 is 26 June 2002.

Response to Amendment

All pending claims 1, 3-22 and 26-28 were examined in this non-final office action in response to the request for continued examination. Claims 2 and 23-25 were canceled by Applicants.

Response to Arguments

35 USC 103(a)

Applicants' arguments filed have been fully considered but they are not persuasive. Amendment to the preamble of each independent claim fails to carry patentable weight. Applicants are relying on an interpretation by the examiner, and potentially others should these claims be issued, that the amended preamble of each independent claim breathes life into the body of the claim. In Fritsch, consumers access the web site via a personal computer or any other wired or wireless Internet access device, such as WebTV, personal digital assistant, cellular telephone, i.e. a wireless device, etc., to obtain a variety of services and products. For instance, a consumer may browse through artists, tracks or albums, pre-listen to a portion of the song and purchase the selected song either by downloading the digital data to her computer hard drive or by placing a mail order for a compact disk (CD). A specially encoded or encrypted MP3 files called "NETrax" are delivered from a server over the Internet or cable services to the end consumers' home PC, see col.2, line 64-col. 3, line 9. The server is a node on a global computer-implemented network, such as the Internet. As known to those skilled in the art, a network router may be used to connect the server to the Internet for controlling the flow of data. Also connected to the Internet is a plurality of nodes, such as personal computers, Web devices, etc., under control by the users (hereinafter collectively referred to as PC users). It is implied that the "etc" aspect of this applies to the cellular telephone previously grouped with personal computers and web devices and therefore the

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methods pertaining to using the personal computer likewise apply to the cellular telephone.

35 USC 101

Arguments were presented by Applicants in anticipation of new ground of rejection under 35 USC 101, *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.* The Supreme Court has identified a number of considerations for determining whether a claim with additional elements amounts to significantly more than the judicial exception itself. The body of the claim must contain these elements in order to overcome the new ground of rejection. Please refer to Federal Register, Vol. 79, No. 241 issued Tuesday, December 16, 2014 pages 74618-74633 for further guidance.

Examiner's Recommendation

Applicants are encouraged to schedule a telephone interview prior to filing a response. The goal of the interview is to seek common ground for a potential allowance. While there is no guarantee of an allowance, it seems worthwhile to discuss issues and options.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a

patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For

more information about eTerminal Disclaimers, refer to

<http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp>.

1. Claims 1-22 and 26-28 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. US 7,548,875. Although the claims at issue are not identical, they are not patentably distinct from each other because the rejected claims achieve a similar outcome using the same computing structures and broad-level techniques.
2. Claims 1-22 and 26-28 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 98 and 127 of copending Application No. 12/322,615. Although the claims at issue are not identical, they are not patentably distinct from each other because the rejected claims achieve a similar outcome using the same computing structures. This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1, 3-22 and 26-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not fall within a least one of four categories of patent eligible subject matter because**

the claimed invention is directed to a judicial exception (i.e. a law of nature, a natural phenomenon, or an abstract idea) that does not amount to significantly more than the judicial exception itself.

Subject Matter Eligibility Standard

When considering subject matter eligibility under 35 U.S.C. 101, it must be determined whether the claim is directed to one of the four statutory categories of invention, i.e., process, machine, manufacture, or composition of matter. If the claim does fall within one of the statutory categories, it must then be determined whether the claim is directed to a judicial exception (i.e. law of nature, natural phenomenon, and abstract idea), and if so, it must additionally be determined whether the claim is a patent-eligible application of the exception. If an abstract idea is present in the claim, any element or combination of elements in the claim must be sufficient to ensure that the claim amounts to significantly more than the abstract idea itself. Examples of abstract ideas include fundamental economic practices; certain methods of organizing human activities; an idea itself; and mathematical relationships/formulas. *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S. ____ (2014).

Analysis

In the instant case, claim 1 is directed to a process. Additionally, the claim is directed to wirelessly delivering digital media to a wireless device which is considered to be an abstract idea inasmuch as such activity is considered both fundamental economic practice and method of organizing human activity by

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requiring a user of the wireless device to interact with a website and wireless device in a specific manner to achieve the claimed outcome. The instant disclosure clearly indicates the wireless device is under control of a user who makes requests to a computer via the wireless device. Interaction with the computer organizes the interaction of the wireless device under control of a user in order to successfully request and receive the digital media. Given that the method of claim 1 is designed to facilitate the exchange of digital media for commerce purposes, the claimed method is presently determined to comprise a series of steps that support an economic process.

The elements of the process are:

configuring the digital media for transmission by having the digital media compressed and storing the compressed digital media in one or more storage mediums; and

transmitting at least a portion of the digital media to the wireless device means, wherein the digital media comprises at least one of a full, partial, or segment of: a song, a musical score, a musical composition, a ringtone, a video or video segment, a movie or movie segment, a film or film segment, an image clip, a picture, a clip, an image, a photograph, a television show, a human voice recording, a personal recording, a cartoon, an animation, an audio advertisement, a visual advertisement, or combinations thereof.

The elements of the instant process, when taken alone, each execute in a manner routinely and conventionally expected of these elements. That is, digital media is configured for transmission and the digital media is transmitted to a wireless device.

The elements of the instant process, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone. That is, the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities which are well-understood, routine and conventional activities previously known to the industry.

Conclusion

The claim as a whole, does not amount to significantly more than the abstract idea itself. This is because the claim does not effect an improvement to another technology or technical field; the claim does not amount to an improvement to the functioning of a computer itself; and the claim does not move beyond a general link of the use of an abstract idea to a particular technological environment.

The claim merely amounts to the application or instructions to apply the abstract idea (i.e. wirelessly delivering digital media to a wireless device) on a computer, and is considered to amount to nothing more than requiring a generic computer system

(e.g. a generic computer system comprising a generic database; a generic element for receiving input; a generic element for displaying output) to merely carry out the abstract idea itself. As such, the claim, when considered as a whole, is nothing more than the instruction to implement the abstract idea (i.e. wirelessly delivering digital media to a wireless device) in a particular, albeit well-understood, routine and conventional technological environment .

Accordingly, the Examiner concludes that there are no meaningful limitations in the claim that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself.

Note: The analysis above applies to all statutory categories of invention. As such, the presentment of claim 1 otherwise styled as a machine or manufacture, for example, would be subject to the same analysis.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

- 4. Claim 1 is rejected under 35 USC 103(a) as being unpatentable over Fritsch, US 6,247,130 IDS filed 16 April 2014 previously applied, in view of Kochian, US 6,278,976 previously applied.**

Fritsch teaches a system and method for maintaining a music web site on the Internet. Consumers may access the web site via a personal computer or any other wired or wireless Internet access device, such as WebTV, personal digital assistant,

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cellular telephone, etc., to obtain a variety of services and products. For instance, a consumer may browse through artists, tracks or albums, pre-listen to a portion of the song and purchase the selected song either by downloading the digital data to her computer hard drive or by placing a mail order for a compact disk (CD). A specially encoded or encrypted MP3 files called "NETrax" are delivered from a server over the Internet or cable services to the end consumers' home PC, see col. 2, line 64-col. 3, line 9. Please note: MP3 is short for MP(EG) Layer 3, a type of audio data compression that can reduce digital sound files by a 12:1 ratio with virtually no loss in quality. See excerpt from Random House Webster's Computer & Internet Dictionary, Third Edition, Philip E. Margolis, 1999.

Fritsch's invention is directed to, among other things, a network-based system for distribution of musical products over a network, such as the Internet for example. The system includes a server platform for processing user requests and other information associated with the operation of the system. The server is connected to a database, which may be remote or local, for storing data. The stored data represents digitized songs, text associated with each song such as track name, album name, artist name, lyrics, etc., image data, graphics, etc., see at least col. 3, lines 10-18.

The server is a node on a global computer-implemented network, such as the Internet. As known to those skilled in the art, a network router may be used to connect the server to the Internet for controlling the flow of data. Also connected to the Internet is a plurality of nodes, such as personal computers, Web devices, etc.,

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under control by the users (hereinafter collectively referred to as PC users). The PC users communicate with the server using dial-up modems, cable modems, IDSN, DSL, etc., and using browser programs executing on their personal computers or other Internet-compatible devices, as well known to those skilled in the art.

Communication links or sessions are established between the PC users and the server, via the Internet, when the PC users log onto the web site hosted by the server, see col. 3, lines 19-33. Fritsch further teaches:

- Regarding claim 1:

- compressing the digital media;

Consumers may access a web site via a personal computer or any other wired or wireless Internet access device, such as WebTV, personal digital assistant, cellular telephone, etc., to obtain a variety of services and products including audio and visual files, see at least Figs. 1C, 2A, 4D-4L; col. 2, line 64-col. 3, line 18 (songs and image data). A specially encoded or encrypted MP3 files called "NETrax" are delivered from a server over the Internet or cable services to the end consumers' home PC, see col. 2, line 64-col. 3, line 9. Please note: MP3 is short for MP(EG) Layer 3, a type of audio data compression that can reduce digital sound files by a 12:1 ratio with virtually no loss in quality. See excerpt from Random House Webster's Computer & Internet Dictionary, Third Edition, Philip E. Margolis, 1999.

- storing the compressed digital media in one or more storage mediums;

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Fritsch teaches all the above as noted under the 103(a) rejection as it pertains to i) delivering compressed digital media, e.g. music, to a user's cellular phone and ii) delivering the purchased items to the user's computer if the selected music is in downloadable digital format. The user can then listen to the song at his computer or download it onto a portable player, see at least col. 5, lines 14-18. Likewise Kochian teaches techniques used in distributing from a service center to a large group of subscribers audio information. In Kochian, the service center stores user profile information, stores compressed audio recordings for future delivery, transmits compressed audio information to each base unit, and acts as an interface for users. The base unit provides status information to the service center, receives service center transmissions, stores the compressed audio information contained in the transmissions, and delivers the audio information to a standard recording device in real-time, see at least abstract; col. 4, lines 2-10. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of storing compressed digital media, e.g. audio or music files, in both the server delivering the digital media and in the user's device, e.g. base unit, as taught by Kochian would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Kochian to the teachings of Fritsch would have yielded predictable results because the level of

ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Fritsch system and methods using Kochian's techniques would permit the downloadable digital media delivered by the Fritsch server to the user's cellular telephone to be pre-stored as compressed digital media and downloaded and stored in the cellular telephone as compressed digital media.

and transmitting at least a portion of the digital media to the wireless device means; Frisch: For instance, a consumer may browse through artists, tracks or albums, pre-listen to a portion, e.g. a music clip, of the song and purchase the selected song either by downloading the digital data to her computer hard drive or by placing a mail order for a compact disk (CD), see at least col. 3, lines 3-6. Fritsch: The purchased items will be delivered immediately over the Internet to the user's computer if the selected music is in downloadable digital format. The user can then listen to the song at his computer, see at least col. 3, lines 7-8 (encoded MP3 files or downloadable format); col. 5, lines 10-20. Consumer pays for the service by having credit card charged or payment tendered in other ways, see at least col. 6, lines 14-24.

- and wherein the compressed digital audio and/or visual file comprises at least one of a full, partial, or segment of: a song, a musical score, a

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musical composition, a ringtone, a video or video segment, a movie or movie segment, a film or film segment, an image clip, a picture, a clip, an image, a photograph, a television show, a human voice recording, a personal recording, a cartoon, an animation, an audio advertisement, a visual advertisement, or combinations thereof,

Fritsch: tracks, albums, music clips, full song, see at least col. 3, lines 3-6.

- 5. Claims 3 and 5-15 are rejected under 35 USC 103(a) as being unpatentable over Fritsch, US 6,247,130 previously applied, and Kochian, US 6,278,976 previously applied, as applied to claim 1 further in view of Park et al., US 6,470,030 previously applied.**

Fritsch and Kochian teach and suggest all the above as noted under the 103(a) rejection for claim 1 as it pertains to delivering digital media, e.g. music, over a communications network to a cellular telephone. Park teaches as known prior at that conventional OFDM receiver systems require a considerable memory capacity for various kinds of synchronization, such as time synchronization, frequency synchronization or frame synchronization. Also, implementation of components for performing the same functions, for example, operators for complex number multiplication or pilot extraction, is overlapped, resulting in consumption of resources. To solve the above problems, it is an object of Park to provide an OFDM receiver system having an optimal structure in view of resource utilization efficiency and chip area, by sharing common resources in a time-divisional manner by storing

FFT-processed OFDM signals according to a predetermined rearrangement rule and extracting specific pilot signals in sequentially processed synchronization steps, see at least col. 1, line 5-col. 2, line 45. In Park's attempt to offer improvements over the prior art, there is provided an orthogonal frequency division multiplexing (OFDM) receiver system comprising: a receiving section for receiving an OFDM signal, converting the same into a digital signal, and compensating a phase error and a frequency error of the digitally converted OFDM signal; a pilot signal decoding section for FFT-processing the output of the receiving section, and sequentially storing pilot signals and data separately according to a rearrangement rule; a synchronizing section for receiving the output of the pilot signal decoding section, performing coarse time synchronization, coarse frequency synchronization, frame synchronization, fine frequency synchronization and fine time synchronization, estimating a phase noise and correcting the same; an equalizing and de-interleaving section for performing a channel equalization algorithm on the output of the pilot signal decoding section using a reference pilot signal of the synchronizing section, restoring the equalized symbol into the original symbol, and rearranging the symbol in the order of the original symbol; and a controller for controlling the timing of data rearrangement in the pilot signal decoding section and feed-back controlling the receiving section according to the outputs of the respective synchronization results, see at least, see at least Fig. 1; col. 3, line 25-col. 4, line 25,; col. 5, lines 18-36. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of synchronized OFDM Park would have yielded

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predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Park to the teachings of Fritsch and Kochian would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Fritsch- Kochian system and methods using Park's techniques would be able to implement synchronized OFDM to make improvements over conventional OFDM implemented by a receiver.

- Regarding claim 3: selection of compressed digital media, Fritsch: see at least col 4, lines 46-47.
- Regarding claim 5: wireless device means is a cell phone, Fritsch: see at least col. 3, lines 1-2.
- Regarding claims 6 and 7: storing at least a portion of the compressed digital media on the cell phone, Fritsch: pre-listen to a portion of a song or full song, i.e. full portion, see at least col. 3, lines 3-6.
- Regarding claim 8: charging a fee for access to compressed digital media, Fritsch: prior to download, system charges consumer's credit card, see at least col. 6, lines 14-26.
- Regarding claim 9: Rejection is based on the teachings and rationale applied to claims 2 as noted above.

- Regarding claims 10-15: Rejections are based on the teachings and rationale applied to claims 1, 9 and dependents of claim 1 having similar subject matter.

6. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over Fritsch, US 6,247,130 previously applied, Kochian, US 6,278,976 previously applied, and Park, US 6,470,030 previously applied, as applied to claim 2 further in view of Lee, US 6,418,330 previously applied.

Fritsch, Kochian and Park teach and suggest all the above as noted under the 103(a) rejection for claim 2 as it pertains to delivering digital media, e.g. music clips or full songs, over a communications network to a cellular telephone, see Fritsch. Likewise in Lee, techniques are used to download ringtones to a radio terminal for the purpose of alerting a user of an incoming call. The downloadable ringtone is any one of a voice, music and a sound. In Lee, the radio terminal may be a cellular phone, See at least abstract; Fig. 2; Fig. 3; col. 1, line 10-col. 2, line 35; col. 2, line 62-col. 5, line 52. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of downloading a ringtone to a cellular telephone as an alert as taught by Lee would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Lee to the teachings of Fritsch, Kochian and Park would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such

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data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Fritsch system and methods alone using Lee techniques would permit Fritsch's music clips or full songs to be used as ringtones in the cellular telephone.

7. Claims 16, 17, 26 and 27 are rejected under 35 USC 103(a) as being unpatentable over Gudorf, US 2002/0116082 previously applied, in view of Park et al., US 6,470,030 previously applied.

Gudorf teaches a system and methods that include (a) receiving electronic files at a central location from a first device, those electronic files representing audio signals; (b) associating the audio files with identification information; (c) storing the audio files at the central location on at least a portion of a storage media, that portion being uniquely associated with the identification information; (d) receiving the identification information from a second device; and (e) transmitting the audio files to the second device upon receipt of the identification information, see at least 0007. In Gudorf, a system is provided for storing and transmitting audio information. It includes a processor, memory, data stored in the memory and instructions executable by the processor. The data identifies a plurality of users or devices and also includes a plurality of files associated with audio information. Each of the files is uniquely associated with the identity of a single user or device. The set of instructions also conditions the transmission of a song from the system to a user or device based on the identity of the user or device associated with the audio

information, see at least 0008. In Gudorf, a method of storing and transmitting songs includes: uniquely associating a portion of the storage space on a server with a user or device; associating the portion with a first identifier; receiving the first identifier; receiving a song file representative of a song; storing the song file in the portion of the storage space associated with the first identifier; receiving a second identifier and a request for the song file; comparing the second identifier with the identifier associated with the requested song file; and transmitting the song file in response to the request depending upon the outcome of the step of comparing, see at least 0009. Gudorf further teaches:

i) Web server 70 contains hardware for sending and receiving information over the World Wide Web, such as web pages or files. The web server 70 may be a typical web server or any computer network server or other automated system capable of communicating with other computers over a network, including the Internet, wide area networks or local area networks, see at least Fig. 1 (70, 71); 0017; 0020; and

ii) As shown in greater detail in FIG. 2, web server 70 functions as a content store and contains a processor 102, a set of instructions 104 which are executed by processor 102 and data such as user storage area 110. The functions, methods and routines of the program are explained in more detail below.

Although the data is shown separately from the instructions, the data may be modified by the processor during execution of the instructions. Moreover, both the data and the instructions may be stored as a program on the hard disk of the

server 70, see at least Fig. 2; 0022; 0025 (user upload storage area)' 0039; 0040.

- Regarding claim 16:

- receiving a data file from the wireless device;

Music is stored on the server in accordance with the steps shown in the flowchart of FIG. 4. First, the user encodes audio compact discs from red book format or an analog source into electronic digital files (step 202). The files are preferably compatible with MPEG-3 format or Sony's ATRAC3 format and are encoded with a general purpose computer, such as computer 60, or a dedicated device. The user then causes end user computer 60 to access the content server 70 via the Internet 80 (such as by logging onto a web page) (step 204), supplies its User ID 112 (step 206) and then uploads the files to the content server 70 (step 208). Using the foregoing example of FIG. 2, User1 would take a compact disc it owned, encode "SongA" as a digital file on end user computer 60 and upload the digital file to the content server 70 via Internet 80. In so doing, the user identifies the song with a string, such as "File1", see at least 0025.

- storing the data file received from the wireless device in a virtual locker on the one or more servers;

Upon receipt of the User ID 112 and the song file, processor 101 of server 70 in accordance with instructions 104 first checks the size of the file to make sure that the user has not exceeded its space limit (step 209). If the

user has, then an error notification will be sent to the user explaining the problem (step 211). Otherwise, processor 101 will store the uploaded file into the space allocated for the particular user (step 210), and associate the file with the identifying string provided by the user, see at least 0026.

- receiving a request for the data file;

The operation of downloading the music is also shown in FIG. 4. In this embodiment, the user accesses the content server 70 (such as by logging onto a web page) via PDA 73 which, for the purposes of this example, shall be considered to be at a geographic location remote from end user computer 60 (step 220). In other words, although the user uploaded the songs with one device, the user may download the songs at a different location with a different device, Examiner's note: a different device would be a device other than the wireless device. For examination purposes, the download request may be from the first device or a second device. The user accesses the web site maintained by content server 70 by using wireless modem 76 in a manner well known to those of ordinary skill in the art. The user next supplies its User ID to content server 70 by entering the information on a web page displayed on screen 75 (step 222). For example, the user may identify itself as "User1" (it is recommended, but not required, that user names be more arbitrary than a designation of "User1" for security reasons), see at least Fig. 4B (220-222); 0027. If the user ID is found, the server 70 checks whether it has already been provided with an identification of the song to be

downloaded (step 228). If not, then server 70 may, optionally, send a list of the identifying strings to the user (step 230). For example, server 70 would send the strings "File1", "File2" and "File3" if the songs matched the illustrative examples in FIG. 2. These strings could be displayed on screen 75. Content server 70 next prompts the user to enter the identifier for the song, which may be entered via touch-screen 75 (step 232), see at least Fig. 4; 0028. The identifier for the song is checked against the list of songs associated with that user (step 234). Using the example values of FIG. 2, the string "File1" would be valid identifier because there is a song file having that identifier contained in User1's space. The string "File4", on the other hand, would not be a valid identifier even though it points to a byte-for-byte identical file with the same name in User2's space. Accordingly, the identifier must identify a song contained in the respective user's space. If the song with that identifier is not contained in the space allocated to that user in user storage user 110, the user is notified of the error (step 211), see at least Fig. 4; 0029.

- and transmitting the data file to the wireless device based on the received request.

The song is validly identified, the song is then sent from the server 70 to the PDA 73 (step 236). Once downloaded, the song may then be played by the user (step 240), see at least Fig. 4B (236); 0028-0030. As taught by Gudorf, either the first device may make the download request and

receive the downloaded data file or a second device may make the download request and receive the data file.

Gudorf teaches all the above as noted under the 103(a) rejection for claim 16 as it pertains to delivering a data file, e.g. songs, over a communications network to a wireless telephone. Park teaches as known prior at that conventional OFDM receiver systems require a considerable memory capacity for various kinds of synchronization, such as time synchronization, frequency synchronization or frame synchronization. Also, implementation of components for performing the same functions, for example, operators for complex number multiplication or pilot extraction, is overlapped, resulting in consumption of resources. To solve the above problems, it is an object of Park to provide an OFDM receiver system having an optimal structure in view of resource utilization efficiency and chip area, by sharing common resources in a time-divisional manner by storing FFT-processed OFDM signals according to a predetermined rearrangement rule and extracting specific pilot signals in sequentially processed synchronization steps, see at least col. 1, line 5-col. 2, line 45. In Park's attempt to offer improvements over the prior art, there is provided an orthogonal frequency division multiplexing (OFDM) receiver system comprising: a receiving section for receiving an OFDM signal, converting the same into a digital signal, and compensating a phase error and a frequency error of the digitally converted OFDM signal; a pilot signal decoding section for FFT-processing the output of the receiving section, and

sequentially storing pilot signals and data separately according to a rearrangement rule; a synchronizing section for receiving the output of the pilot signal decoding section, performing coarse time synchronization, coarse frequency synchronization, frame synchronization, fine frequency synchronization and fine time synchronization, estimating a phase noise and correcting the same; an equalizing and de-interleaving section for performing a channel equalization algorithm on the output of the pilot signal decoding section using a reference pilot signal of the synchronizing section, restoring the equalized symbol into the original symbol, and rearranging the symbol in the order of the original symbol; and a controller for controlling the timing of data rearrangement in the pilot signal decoding section and feed-back controlling the receiving section according to the outputs of the respective synchronization results, see at least, see at least Fig. 1; col. 3, line 25-col. 4, line 25,; col. 5, lines 18-36. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of synchronized OFDM Park would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Park to the teachings of Gudorf would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.*

The Gudorf system and methods using Park's techniques would be able to implement OFDM to make improvements over conventional OFDM implemented by a receiver. Otherwise stated, Gudorf and Park teach and suggest transmitting the data file to the wireless device using orthogonal frequency-division multiplex (OFDM) modulation based on the received request.

- Regarding claim 17: selection of the data file, Gudorf: song request, see at least Fig. 4B (228 Y; 230, 232, 236); 0028.
- Regarding claims 26 and 27: device other than the wireless device, Gudorf as noted above for claim 16.

8. Claims 18-20 are rejected under 35 USC 103(a) as being unpatentable over Gudorf, US 2002/0116082 previously applied, and Park et al., US 6,470,030 previously applied, as applied to claim 16 further in view of Fritsch, US 6,247,130 previously applied.

Gudorf and Park teach and suggest all the above as noted under the 103(a) rejection for claim 16 as it pertains to delivering a data file, e.g. songs, over a communications network to a wireless telephone. In Fritsch, techniques are implemented to maintain a music web site on the Internet. Consumers may access the web site via a personal computer or any other wired or wireless Internet access device, such as WebTV, personal digital assistant, cellular telephone, etc., to obtain a variety of services and products. For instance, a consumer may browse through

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artists, tracks or albums, pre-listen to a portion of the song and purchase the selected song either by downloading the digital data to her computer hard drive or by placing a mail order for a compact disk (CD). A specially encoded or encrypted MP3 files called "NETrax" are delivered from a server over the Internet or cable services to the end consumers' home PC, see col. 2, line 64-col. 3, line 9. Please note: MP3 is short for MP(EG) Layer 3, a type of audio data compression that can reduce digital sound files by a 12:1 ratio with virtually no loss in quality. See excerpt from Random House Webster's Computer & Internet Dictionary, Third Edition, Philip E. Margolis, 1999. Fritsch further teaches charging a fee for access to compressed digital media. Prior to download, the system charges the consumer's credit card, see at least col. 6, lines 14-26. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of downloading portions of songs, e.g. music clip, or a full song over a communications network to a cellular telephone, and charging a fee to download songs as taught by Fritsch would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Fritsch to the teachings of Gudorf and Park would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Gudorf-Park system and methods using Fritsch's techniques would facilitated downloading a data file, e.g. songs or portions of songs, to a cellular telephone over

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a communications network and additionally charge a fee for transmitting the data file.

9. Claims 21 and 28 are rejected under 35 USC 103(a) as being unpatentable over Fritsch, US 6,247,130 previously applied, in view of Chen et al., US 2003/0115041 "Chen" previously applied.

Fritsch teaches a system and method for maintaining a music web site on the Internet. Consumers may access the web site via a personal computer or any other wired or wireless Internet access device, such as WebTV, personal digital assistant, cellular telephone, etc., to obtain a variety of services and products. For instance, a consumer may browse through artists, tracks or albums, pre-listen to a portion of the song and purchase the selected song either by downloading the digital data to her computer hard drive or by placing a mail order for a compact disk (CD). A specially encoded or encrypted MP3 files called "NETrax" are delivered from a server over the Internet or cable services to the end consumers' home PC, see col. 2, line 64-col. 3, line 9. Please note: MP3 is short for MP(EG) Layer 3, a type of audio data compression that can reduce digital sound files by a 12:1 ratio with virtually no loss in quality. See excerpt from Random House Webster's Computer & Internet Dictionary, Third Edition, Philip E. Margolis, 1999.

Fritsch's invention is directed to, among other things, a network-based system for distribution of musical products over a network, such as the Internet for example. The system includes a server platform for processing user requests and other information associated with the operation of the system. The server is connected to

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a database, which may be remote or local, for storing data. The stored data represents digitized songs, text associated with each song such as track name, album name, artist name, lyrics, etc., image data, graphics, etc., see at least col. 3, lines 10-18.

The server is a node on a global computer-implemented network, such as the Internet. As known to those skilled in the art, a network router may be used to connect the server to the Internet for controlling the flow of data. Also connected to the Internet is a plurality of nodes, such as personal computers, Web devices, etc., under control by the users (hereinafter collectively referred to as PC users). The PC users communicate with the server using dial-up modems, cable modems, IDSN, DSL, etc., and using browser programs executing on their personal computers or other Internet-compatible devices, as well known to those skilled in the art. Communication links or sessions are established between the PC users and the server, via the Internet, when the PC users log onto the web site hosted by the server, see col. 3, lines 19-33. Fritsch further teaches:

- Regarding claims 21 and 28:

Fritsch teaches and suggests all the above as noted under the 103(a) rejection as it pertains to delivering compressed digital audio files or any other digital files from a server to user's device over a wired or wireless network, and specifically mentions i) purchased items will be delivered immediately over the Internet to the user's computer if the selected music is in downloadable digital format. The user can then listen to the song at his

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computer, see at least col. 5, lines 10-20, and ii) delivering MP3 files.

Likewise Chen teaches a wired or wireless communication connection from one computing entity to another computing entity that delivers compressed audio or video information or other data in a modulated data signal, see at least abstract; 0084. A computer processes audio information as a series of numbers representing the audio information. For example, a single number can represent an audio sample, which is an amplitude (i.e., loudness) at a particular time. Several factors affect the quality of the audio information, including sample depth, sampling rate, and channel mode. Sample depth (or precision) indicates the range of numbers used to represent a sample. The more values possible for the sample, the higher the quality is because the number can capture more subtle variations in amplitude. For example, an 8-bit sample has 256 possible values, while a 16-bit sample has 65,536 possible values. The sampling rate (usually measured as the number of samples per second) also affects quality. The higher the sampling rate, the higher the quality because more frequencies of sound can be represented. Some common sampling rates are 8,000, 11,025, 22,050, 32,000, 44,100, 48,000, and 96,000 samples/second. Mono and stereo are two common channel modes for audio. In mono mode, audio information is present in one channel. In stereo mode, audio information is present two channels usually labeled the left and right channels. Other modes with more channels, such as 5-channel surround sound, are also possible. Table 1 shows several formats

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of audio with different quality levels, along with corresponding raw bit rate costs. Compression (also called encoding or coding) decreases the cost of storing and transmitting audio information by converting the information into a lower bit rate form. Compression can be lossless (in which quality does not suffer) or lossy (in which quality suffers). Decompression (also called decoding) extracts a reconstructed version of the original information from the compressed form. Quantization is a conventional lossy compression technique. There are many different kinds of quantization including uniform and non-uniform quantization, scalar and vector quantization, and adaptive and non-adaptive quantization. Quantization maps ranges of input values to single values. For example, with uniform, scalar quantization by a factor of 3.0, a sample with a value anywhere between -1.5 and 1.499 is mapped to 0, a sample with a value anywhere between 1.5 and 4.499 is mapped to 1, etc. To reconstruct the sample, the quantized value is multiplied by the quantization factor, but the reconstruction is imprecise. Continuing the example started above, the quantized value 1 reconstructs to $1 \times 3 = 3$; it is impossible to determine where the original sample value was in the range 1.5 to 4.499. Quantization causes a loss in fidelity of the reconstructed value compared to the original value. Quantization can dramatically improve the effectiveness of subsequent lossless compression, however, thereby reducing bit rate, see at least 0006-0012. Chen further teaches an MP3 encoder can use any of several different coding channel modes, including

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single channel, two independent channels (left and right channels), or two jointly coded channels (sum and difference channels). If the encoder uses jointly coded channels, the encoder computes a set of scale factors for each of the sum and difference channels using the same techniques that are used for left and right channels, see at least 0049; 0050; 0052; 0076 (improvement and efficient coding). Also see 0051; 0092; 0106; 0131; 0134; 0158; 0149 for streaming audio. sampling/sample rates, see at least 0006-0008; 0012; 0014; 0036; 0092; 0093; 0094; 0102; 0109; 0169; 0171; normalizing, see at least 0097; 0159; 0161; 0163; 0164; 0167; 0169; 0172); mono, see at least 0042; 0043; 0049; 0095; 0118; filter/filtering, see at least 0036; 0046. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of delivering compressed digital audio comprising optimizing the digital audio and/or visual file as taught by Chen would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Chen to the teachings of Fritsch would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Fritsch system and methods using Chen's techniques would transmit compressed data files, e.g. digital audio

and/or visual files, using an optimization scheme to improve the delivered files.

10. Claim 22 is rejected under 35 USC 103(a) as being unpatentable over Fritsch, US 6,247,130 previously applied, and Chen , US 2003/0115041 previously applied, as applied to claim 21 further in view of Park, US 6,470,030 previously applied.

Fritsch and Chen teach and suggest all the above as noted under the 103(a) rejection for claim 21 as it pertains to transmitting optimized data file from one or more servers to a wireless device. Park teaches as known prior at that conventional OFDM receiver systems require a considerable memory capacity for various kinds of synchronization, such as time synchronization, frequency synchronization or frame synchronization. Also, implementation of components for performing the same functions, for example, operators for complex number multiplication or pilot extraction, is overlapped, resulting in consumption of resources. To solve the above problems, it is an object of Park to provide an OFDM receiver system having an optimal structure in view of resource utilization efficiency and chip area, by sharing common resources in a time-divisional manner by storing FFT-processed OFDM signals according to a predetermined rearrangement rule and extracting specific pilot signals in sequentially processed synchronization steps, see at least col. 1, line 5- col. 2, line 45. In Park's attempt to offer improvements over the prior art, there is provided an orthogonal frequency division multiplexing (OFDM) receiver system

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comprising: a receiving section for receiving an OFDM signal, converting the same into a digital signal, and compensating a phase error and a frequency error of the digitally converted OFDM signal; a pilot signal decoding section for FFT-processing the output of the receiving section, and sequentially storing pilot signals and data separately according to a rearrangement rule; a synchronizing section for receiving the output of the pilot signal decoding section, performing coarse time synchronization, coarse frequency synchronization, frame synchronization, fine frequency synchronization and fine time synchronization, estimating a phase noise and correcting the same; an equalizing and de-interleaving section for performing a channel equalization algorithm on the output of the pilot signal decoding section using a reference pilot signal of the synchronizing section, restoring the equalized symbol into the original symbol, and rearranging the symbol in the order of the original symbol; and a controller for controlling the timing of data rearrangement in the pilot signal decoding section and feed-back controlling the receiving section according to the outputs of the respective synchronization results, see at least, see at least Fig. 1; col. 3, line 25-col. 4, line 25,; col. 5, lines 18-36. One of ordinary skill in the art at time the invention was made would have recognized that applying the known techniques of synchronized OFDM Park would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the techniques of Park to the teachings of Fritsch and Chen would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such data processing

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features into similar systems. Obviousness under 35 USC 103 in view of the Supreme Court decision *KSR International Co. vs. Teleflex Inc.* The Fritsch-Chen system and methods using Park's techniques would be able to implement OFDM to make improvements over conventional OFDM implemented by a receiver.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT POND whose telephone number is (571)272-6760. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jason Dunham can be reached on 571-272-8109. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT POND/
Primary Examiner, Art Unit 3684
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