

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GARY WHITON PEARSON

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Appeal 2008-1614  
Application 10/437,393  
Technology Center 2600

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Decided: September 15, 2008

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Before KENNETH D. HAIRSTON, ROBERT E. NAPPI, and  
CARLA M. KRIVAK, *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from a final rejection of  
claims 1-24. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

## STATEMENT OF CASE

Appellant's claimed invention is directed to digital audio packet-switched communications method and system (Spec. ¶[0001]). The method and system include packetizing audio information for packet-switched communications by separating a digital audio sample into at least one most and least significant bits, placing the most significant bit into a most significant bit packet having a high transmission priority over a packet-switched network, and placing the least significant bit into a least significant bit packet having a low transmission priority over the packet-switched network (cl. 1).

Independent claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method of packetizing digital audio information for packet-switched communications, comprising:

separating a digital audio sample into at least one most significant bit and at least one least significant bit;

placing the at least one most significant bit of the digital audio sample into a most significant bit packet having a high transmission priority for transmission over a packet-switched network, and

placing the at least one least significant bit of the digital audio sample into a least significant bit packet having a low transmission priority for transmission over the packet-switched network.

## REFERENCES

Kondo	US 5,130,985	Jul. 14, 1992
Yoshitani	US 2003/0067922 A1	Apr. 10, 2003 (filed Sep. 2, 2002)

Claims 1-3, 5, 6, 8-11, 13, and 14 stand rejected under 35 U.S.C. § 102(b) based upon the teachings of Kondo.

Claims 7, 15-19, and 21-24 stand rejected under 35 U.S.C. § 103(a) based upon the teachings of Kondo.

Claims 4, 12, and 20 stand rejected under 35 U.S.C. § 103(a) based upon the teachings of Kondo and Yoshitani.

Appellant contends that the rejection of the claims is improper because Kondo teaches a connection-oriented network and not a packet-switched network as claimed by Appellant (App. Br. 8; Reply Br. 5).

### ISSUES

Did the Examiner err in rejecting claims 1-3, 5, 6, 8-11, 13, and 14 as anticipated by Kondo under 35 U.S.C. § 102(b) by finding that Kondo teaches the claimed combination of packetizing digital audio information for packet-switched communications?

Did the Examiner err in rejecting claims 7, 5-19, and 21-24 as obvious over Kondo under 35 U.S.C. § 103(a) finding that Kondo teaches the claimed combination of packetizing digital audio information for packet-switched communications?

Did the Examiner err in rejecting claims 4, 12, and 20 as obvious over Kondo and Yoshitani under 35 U.S.C. § 103(a) finding that Kondo teaches the claimed combination of packetizing digital audio information for packet-switched communications and that Yoshitani teaches delayed data discarded and replaced by supplementary data created with data extrapolated from data before and after it?

## FINDINGS OF FACT

1. Appellant's invention employs a packet-switched network where high order bits are sequentially entered into a high order bit packet and low order bits are sequentially entered into a low order bit packet. The packets may include bits of multiple digital audio samples. When the packets are full, they are transmitted to a router. The packets have headers with information such as packet priority, packet source, destination, and/or packet sequence number, used for routing (Spec. ¶[0035]).

2. Appellant's invention also defines a packet as a set of digital information transmitted over a packet-switched network according to a packet switching protocol (Spec. ¶[0026]). The packets are variable length. In contrast to a packet-switched network, cells transmitted over a "connection-oriented" network, according to connection-oriented protocols such as asynchronous transfer mode, are fixed length (Spec. ¶[0028]).

3. Kondo teaches a speech packet communication system for communicating encoded speech signals in the form of a packet (col. 1, ll. 6-8). The communication network is, for example, Asynchronous Transfer Mode (ATM) where a part of a packet can be discarded depending on the traffic state and in accordance with an assigned priority (col. 2, ll. 5-10). Particularly, Kondo teaches a speech communication system where two speech terminal means communicate speech signal packets to each other through a transmission line connected therebetween. The transmission line includes at least an intermediate switching node for controlling packet traffic through the transmission line based on priority indicators in each packet (col. 21, ll. 52-58).

4. In an ATM network the packet-like transmission unit used is called a cell having fixed length (Kondo, col. 3, ll. 26-28). Each packet includes a logical channel number indicative of a transit node through which that packet passes to a target receiver, a sequence number given in the order of generation of packets, a most/least significant packet indication bit, a priority of packet transmission bit, a prediction coefficient adaptation mode bit, and speech information (Kondo, col. 15, ll. 25-35).

5. Yoshitani teaches a non reproduced (lost voice) packet is replaced by a supplementary packet created from packets before and after it. The packet that is not reproduced is stored along with other packets. When reproducing voice after recognition is complete, all received packets are arranged in a predetermined order based on their detected sequence number and reproduced (Abstract).

## PRINCIPLES OF LAW

### *Anticipation*

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim anticipates that claim. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992).

The law of anticipation, however, does not require that the reference teach what the Appellant is claiming, but only that the claims at issue “read on” something disclosed in the reference. *See Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

*Obviousness*

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If the Examiner’s burden is met, the burden then shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.*

However, an obviousness “analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). Further, “an obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.” *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007).

## ANALYSIS

### *Anticipation*

The Examiner rejected claims 1-3, 5, 6, 8-11, 13, and 14 under 35 U.S.C. § 102(b) as anticipated by Kondo. We address the Examiner's rejection with respect to representative claim 1. The Examiner contends that Kondo teaches all the features of claim 1. Particularly, the Examiner contends that the speech packet communication system and method in an ATM network as described in Kondo is the same as a "method/system for packetizing digital audio for packet-switched communication." (Ans. 3).

Appellant asserts Kondo "does not disclose or suggest, in the claimed combination, a method of packetizing digital audio information for packet-switched communications." (App. Br. 7) Further, Kondo does not disclose or suggest placing at least one most significant bit into a packet and at least one least significant bit for transmission over a packet-switched network as recited in claim 1 (App. Br. 7)). Appellant explains that packet-switched communications are different from ATM communications (a connection-oriented mode) (App. Br. 7). That is, "each node of a packet-switched network determines how best to route a packet, a connection oriented network reserves channels for calls so that the transmission path for cells is determined (and dedicated) before the cells arrive at a node" (App. Br. 8). Appellant further asserts that the difference between its packet-switched communications and Kondo is that Kondo teaches ATM which includes fixed length packets not variable length packets as does Appellant's invention. Although it is true that packet-switched communications use variable length packets and ATM uses fixed length packets (FF4), Appellant's packet-switched communications is recited broadly enough to

read on Kondo. That is, the claims recite only a packet and not its length. Additionally, Kondo teaches a speech packet communication system and method in which a “communication network is, for example, Asynchronous Transfer Mode (hereinafter referred to ATM)” (FF 3, emphasis added), can be used where a part of a packet is discarded in accordance with a traffic state (col. 2, ll. 5-8). Thus, Kondo is not limited to ATM; rather, ATM is given as one example of a packet-type network. It is not until Fig. 36A, in a tenth embodiment, does Kondo reference a specific ATM system—a telephone (col. 20, ll. 39-41). The other figures and embodiments of Kondo merely reference a communication system that includes packets. Kondo also teaches discarding a packet being determined with respect to a priority assigned to the packet (col. 2, ll. 8-10). Thus, because Appellant’s claims do not recite the differences urged and argued by Appellant, we find them broad enough to include ATM fixed length packets as well as variable length packets. We therefore find that Kondo anticipates claim 1. With respect to claim 9, Appellant relies on arguments set forth above and provides no additional arguments or evidence for overcoming the rejection of independent claim 9, which is similar in scope to claim 1. Therefore, we also find Kondo anticipates claim 9.

*Claims 2, 5, 10, 13, and 18*

Appellant asserts that the router recited in claims 2, 5, 10, 13, and 18 is not the same as the switch recited in Kondo (App. Br. 13-14). We do not agree.

The Examiner is correct in his contention that the claimed router reads on Kondo’s switch as they function the same (Ans. 12). Kondo’s switches “route” the packets to various devices, according to sequence number, such

as inverse quantizers (col. 17, ll. 11-21), a demodulator (col. 17, ll. 42-48), or a noise generator (col. 17, ll. 49-57), for example (FF3). Thus, the claimed router in claims 2, 5, 10, 13, and 18 reads on Kondo's switch. Because we find Appellant's arguments unpersuasive we sustain the Examiner's rejection of claims 2, 5, 10, 13, and 18.

*Obviousness*

*Claims 7, 15, and 16*

The Examiner rejected claims 7, 15-19, and 21-24 as being obvious over Kondo. With respect to claims 7, 15, and 16, Appellant merely states these claims are allowable because of their dependency on an allowable base claim (App. Br. 19). Appellant made no separate arguments for patentability of any of these claims subject to the Examiner's 35 U.S.C. § 103(a) rejections. Appellant instead relies on arguments made with respect to independent claims 1 and 9 further stating that Kondo fails to recite the digital audio sample of an eight bit G.711 sample having a sign bit, three exponent bits, and four mantissa bits (App. Br. 19). Because we find Appellant's arguments unpersuasive as discussed *supra.*, we sustain the Examiner's rejection of claims 7, 15, and 16.

*Claims 17-19, 21, and 24*

The Examiner rejected claim 17 as being obvious over Kondo for the reason that the computer readable medium for storing a computer program that packetizes the digital audio information is knowledge generally available to one ordinarily skilled in the art (Ans. 6-7,13).

Appellant asserts that claim 17 is not obvious for the reasons submitted with respect to claims 1 and 9, and further, there is no "showing,

of any proper motivation in the prior art to modify Kondo to obtain the above-noted features recited in claim 17” (App. Br. 20). Appellant further states there is no motivation taught in any of the cited references.

However, as stated in *KSR, supra*, “one can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 1741 In this instance we agree with the Examiner that it would be an obvious design choice by one ordinarily skilled in the art at the time of the invention to employ a computer readable medium for storing a computer program that packetized the digital audio information. Thus, we sustain the Examiner’s rejection of claim 17.

With respect to claims 18, 19, 21, and 24, Appellant made no separate arguments for patentability of any of these claims. Appellant instead relies on arguments made with respect to independent claim 17 (App. Br. 21-23). Because we find those arguments unpersuasive as discussed above, we sustain the Examiner’s rejection of claims 18, 19, 21, and 24.

*Claims 4, 12, and 20*

The Examiner rejected claims 4, 12, and 20 under 35 U.S.C. § 103(a) as obvious over Kondo and Yoshitani. The Examiner contends that Kondo does not explicitly disclose reassembling audio samples using replacement bits in place of dropped least significant bit packets, but that Yoshitani shows delayed data discarded and replaced by supplementary data created with data extrapolated from data before and after it to reassemble the audio (FF5; Ans. 7).

Appellant asserts that claims 4, 12, and 20 are allowable over Kondo and Yoshitani for the reasons that these claims depend indirectly from claims 1, 9, and 17 (App. Br. 24-26).

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Appellant made no separate arguments for patentability of any of these claims. Because we find Appellant's arguments with respect to claims 1, 9, and 17 unpersuasive as discussed above, we sustain the Examiner's rejection of claims 4, 12, and 20.

#### CONCLUSION

We therefore conclude that the Examiner did not err in rejecting claims 1-3, 5, 6, 8-11, 13, and 14 under 35 U.S.C. §102(b) and in rejecting claims 4, 7, 12, 15-19, and 20-24 under 35 U.S.C. § 103(a).

#### DECISION

We affirm the decision of the Examiner rejecting claims 1-24.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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