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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DETLEF RODE and UWE ZURMUEHL

Appeal 2010-007930
Application 11/044,119
Technology Center 2400

Before, JEAN R. HOMERE, BRYAN F. MOORE, and JOHN G. NEW, *Administrative Patent Judges*.

NEW, *Administrative Patent Judge*.

DECISION ON APPEAL

SUMMARY

Appellants file this appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 13-54. Specifically, the Examiner rejected claims 13, 15-24, 26-31, 33-49, and 51-54 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer et al. (US 2002/0145976 A1, October 10, 2002) ("Meyer") and Chiu et al. (US 6,505,253 B1, Jan. 7, 2003) ("Chiu"). The Examiner rejected claims 14, 25, 32, and 50 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer, Chiu, and Petr Cach and Petr Fedler, *IP over CAN*, September 2001, *http://ietfreport.isoc.org/idrefl draft-cafi-can-ipl* ("Cach").

We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART and enter NEW GROUNDS of rejection pursuant to 37 CFR § 41.50(b).

STATEMENT OF THE CASE

Appellants' invention is directed to a method for monitoring a data transmission between at least two network users. Abstract.

GROUPING OF CLAIMS

Because Appellants argue that the Examiner erred for substantially the same reasons with respect to independent claims 13, 23, and 24 and dependent claims 14-22, 26, 28, 31, 39, 40, 43-49, and 50-53, we select claim 13 as representative of this group. App. Br. 14. Claim 13 recites:

> 13. A method for monitoring a data transmission between at least two network users, comprising

> transmitting, by at least one sender data in a form of data telegrams to at least one receiver, a data transmission taking place via at least one data telegram;
>
> transmitting, by the receiver, at least one flow control telegram to the sender when the data of a data transmission is transmitted in a segmented manner in a first data telegram and at least one subsequent data telegram; and
>
> transmitting an additional flow control telegram from the receiver to the sender after a last data telegram of a data transmission.

Claims App'x 1.

Appellants argue that the Examiner erred for substantially the same reasons with respect to claims 16 and 25 and we therefore select claim 16 as representative of this group. Claim 16 recites:

> 16. The method as recited in claim 13, further comprising:
>
> checking, by the sender, whether a flow control telegram is received within a predefinable first time period after sending at least one message; and
>
> in case of an error, repeating by the sender, at least one of a last sent data telegram or all last sent data telegrams of a data transmission.

Id.

Appellants argue that the Examiner also erred for substantially the same reasons with respect to claims 17, 26, 32, and 38 and we select claim 17 as representative of this group. Claim 17 recites:

> 17. The method as recited in claim 13, further comprising:

> checking, by the sender, whether the receiver can be operated in a confirmed transmission mode with sending of the flow control telegram at the end of the data transmission in that the sender sends one or more test or configuration messages and checks receipt of a corresponding flow control telegram as a confirmation.

Id.

Appellants argue that the Examiner also erred for substantially the same reasons with respect to claims 20, 29, 41, and 47 and we select claim 20 as representative of this group.

> 20. The method as recited in claim 18, wherein an identified configuration message allows a switchover into a confirmed operating mode at any arbitrary time, to the extent that the operating mode is supported.

Claims App'x 2.

Appellants argue that the Examiner erred for substantially the same reasons with respect to claims 21, 30, 37, and 42, and we therefore select claim 21 as representative of this group. Claim 21 recites:

> 21. The method as recited in claim 17, further comprising:
>
> checking to determine whether the sender receives the flow control telegram after the test or configuration message within a predefinable second time period.

Id.

Appellants argue that the Examiner also erred for substantially the same reasons with respect to claims 33-36, 49 and 54, and we select claim 33 as representative of this group.

> 33. The device as recited in claim 32, wherein two transmission modes are differentiated, a first transmission mode allowing the transmission of the additional flow control

> telegram from the receiver to the sender after a last data telegram of a data transmission, and a second transmission mode not allowing the transmission, the sender operating in the first transmission mode upon receipt of the flow control telegram after one of the test and the configuration message at the sender, and otherwise switching over to the second transmission mode.

Claims App'x 4.

Appellants argue that the Examiner also erred in rejecting claim 37

Claim 37 recites:

> 37. The storage device as recited in claim 23, wherein the data transmission is executed according to ISO protocol 15765-2, and wherein a first flow control telegram type is used as a positive confirmation and a second flow control telegram type is used as a negative confirmation, and wherein the sender checks whether a flow control telegram is received within a predefinable first time period after sending at least one message, wherein for an error, the sender repeats at least one of a last sent data telegram and all last sent data telegrams of a data transmission.

Claims App'x 5.

ISSUES AND ANALYSES

<u>Claim 13</u>

Issue 1

Appellants argue that the Examiner erred in rejecting claim 13 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer and Chiu. App. Br. 10. Specifically, Appellants contend that the Examiner erred in finding that an artisan of ordinary skill would not have been motivated to combine the teachings of Meyer with

those of Chiu. *Id.* We therefore address the issue of whether the Examiner properly combined the Meyer and Chiu references.

Analysis

According to Appellants, Meyer teaches a "method of controlling the flow of an amount of data from a sending peer to a receiving peer." *Id.* (quoting Meyer, Abstract). Appellants point out that Chiu, on the other hand, teaches a "multicast repair tree" is established having one sender station and a plurality of repair head stations [wherein] a repair head station retransmits a lost message to its affiliated group of member stations upon receipt from a member station of a NACK message indicating that the selected message was not received." App. Br. 10 (quoting Chiu, col. 2, ll. 58-64). The purpose of Chiu, argue the Appellants, is to address situations "where there are hundreds of receiving stations, or thousands or millions of receiving stations, the large number of ACK or NACK messages overwhelm the transmitting station." App. Br. 10 (quoting Chiu, col. 2, ll. 44-51).

Appellants argue that since Meyer concerns a sending peer and a receiving peer, it would not benefit from Chiu, because the issue of congestion is not identified in Meyer. App. Br. 10. Furthermore, argue Appellants, the Chiu system is not compatible with the Meyer system because Meyer does not use the "multicast repair tree" structure taught by Chiu. *Id.*

The Examiner responds finding that although Meyer discloses a sending peer and a receiving peer of a communication, the Examiner interprets that "peer to peer" is an instant of a plurality of peers instead of

unicast or multicast communication (i.e., "It may be noted that the embodiment of FIG.1 is only one example, and this example can be varied in a number of ways. The skilled person will understand that the steps can also be arranged differently"). Ans. 12 (quoting Meyer, ¶ [0047]). Moreover, the Examiner finds that Meyer also teaches the difficulties posed by congestion to networks. Ans. 12 (citing Meyer, ¶¶ [0023], [0057]). The Examiner finds therefore, that the invention taught by Meyer would benefit from the invention taught by Chiu with regard to this identified issue of congestion. Ans. 12.

The Examiner also finds that the feature upon which Appellants rely (i.e., the "multicast repair tree" structure taught by Chiu) is not recited in claim 13 and notes that although the claims are interpreted in light of the specification, limitations from the specification may not be read into the claims. Ans. 12-13 (citing *In re Van Geuns*, 988 F.2d 1181, 1185 (Fed. Cir. 1993)). The Examiner further finds that Appellants' argument that the alleged incompatibilities posed by Chiu's "multicast repair tree" to Meyer's method of controlling the "flow of an amount of data from a sending peer to a receiving peer" teach away from the combination of the two references represents an improper attacking of a single reference when the rejections are based on combinations of references. Ans. 13 (citing *In re Keller*, 642 F.2d 413, 426 (C.C.P.A. 1981)).

We agree with the Examiner. Appellants do not dispute that both Meyer and Chiu are references from the same field of endeavor and are, consequently, analogous art. *See K-TEC, Inc. v. Vita-Mix Corp.*, 696 F.3d 1364, 1375 (Fed. Cir. 2012). We agree with the Examiner that Meyer teaches or suggests a plurality of peers. Ans. 12; *see also* Meyer, ¶ [0016]

("It may be noted that the present invention can be implemented in connection with any type of flow control"). Moreover, we agree with the Examiner's finding that an artisan of ordinary skill would be motivated to combine Meyer with Chiu as a means of addressing the problem of congestion identified in Meyer. Ans. 12. We consequently adopt the Examiner's conclusion that it would have been obvious to one of ordinary skill in the contemporaneous art to have combined Chiu's teaching of transmitting an additional flow control telegram from the receiver to the sender after a last data telegram of a data transmission, with Meyer's teaching of a data flow control method, for the purpose of establishing reliable communication which does not cause congestion in the network by ACK or NACK messages transmitted by the receiver. Ans. 4.

Issue 2

Appellants argue that the Examiner erred in finding that Chiu teaches or suggests the limitation of claim 13 reciting "transmitting an additional flow control telegram from the receiver to the sender after a last data telegram of a data transmission." App. Br. 13. Specifically, Appellants argue that Chiu fails to teach or suggest a "last data telegram of a data transmission." We therefore next address the issue of whether the Examiner so erred.

Analysis

Appellants argue that even if, as the Examiner finds, Chiu teaches "immediately [sending] an ACK message to its repair head indicating whether it has received all the packets transmitted" (Chiu, col. 24, ll. 5-8),

Chiu does not thereby disclose or even suggest the disputed limitation. Appellants submit that "a last data telegram" is wholly different from "all the packets transmitted." App. Br. 13.

The Examiner finds that Chiu teaches "[w]hen a member (i.e., the receiver) receives the beacon packet with the TXDONE flag set (i.e., a last data telegram of the data transmission), it immediately sends an ACK message (i.e., an additional flow control telegram) to its repair head indicating whether it has received all the packets transmitted." Ans. 14 (quoting Chiu, col. 24, ll. 5-8). The Examiner interprets the quoted passage to mean that the ACK message is sent immediately after receiving all of the packets. *Id.* The Examiner therefore finds that a last data telegram packet is necessarily included among all the packets transmitted, and that therefore the ACK message is sent right after receiving all the packets, including the last packet. *Id.*

We agree with the Examiner's findings cited above, and we adopt them as our own. Chiu teaches that the beacon packet with the TXDONE flag set triggers the transmission of the ACK message, indicating that all packets have been received. Ans. 14. We find that Chiu teaches that the "beacon packet with the TXDONE flag set" is necessarily sent after transmission of a "last data telegram" and that the subsequent transmission of the "ACK message" by the receiver corresponds to the "additional flow control telegram" sent upon receipt of the beacon packet with the TXDONE flag set." *Id.* We consequently find that the Examiner did not err in finding that the combination of Chiu and Meyer discloses the limitation of claim 13 reciting "transmitting an additional flow control telegram from the receiver to the sender after a last data telegram of a data transmission." *Issue 3*

Appellants argue that the Examiner erred further with respect to the same limitation of claim 13 by finding that Chiu teaches or suggests "transmitting an additional flow control telegram *from the receiver to the sender*." App. Br. 14 (emphasis in App. Br.). We therefore address the issue of whether the Examiner erred in so finding.

Analysis

Appellants contend that the repair head taught by Chiu is not a sender but merely part of the repair tree structure. App. Br. 14. Appellants argue further that the only communication from a repair head to the sender involves the receipt of information from the sender, which is completely unrelated to transmitting information from the receiver to the sender. *Id.* In this regard, according to Appellants, Chiu states that the "sender transmits this packet periodically until all of its immediate members acknowledge the receipt of all packets sent. The sender can then exit." *Id.* (quoting Chiu, col. 24, ll. 2-4). Appellants contend that the "immediate members" are earliest members of the repair tree, *viz.*, repair heads, and not the receiver. App. Br. 14.

Appellants also argue that the arrow depicted in FIG. 1 extending from the repair head to the sender does not provide any meaningful explanation as to how a flow control telegram from the receiver is sent to the sender or even that a repair head station necessarily is sending an acknowledgment from the receiver to the sender. *Id.* Appellants argue that it is therefore apparent that a repair head is not a sender but merely part of the repair tree structure and that, accordingly, an additional flow control

telegram from the receiver to the sender (as provided in the disputed limitation) is neither taught nor suggested by Chiu. *Id.*

The Examiner responds that Chiu teaches or suggests that the member (i.e., the receiver) sends the ACK message to its repair head and, in FIG. 1, the arrows from repair heads to the sender are construed as representing the repair heads sending the message to the sender. Ans. 14 (citing Chiu, FIG. 1; Cols. 23-24, ll. 60-31). The Examiner concedes that the repair head is not a sender, finds that it is an intermediate unit for forwarding the communications between the receiver and the sender. Ans. 14.

We agree with the Examiner and adopt the findings as our own. Nothing in the plain language of the claim precludes the possibility of an intermediate transmission unit between receiver and sender, the limitation only requires that the flow control telegram be transmitted from receiver to sender. Ans. 14. Chiu teaches that "[t]he sender notifies all members [including receivers and repair heads] of session completion with a beacon packet that has the TXDONE flag set." Chiu, col. 23, ll. 65-67; *see also* Ans. 14. Further, "[w]hen a member (i.e., a receiver) receives the beacon packet with the TXDONE flag set, it immediately sends an ACK message to its repair head indicating whether it has received all the packets transmitted or requires more retransmissions." Chiu, col. 24, ll. 5-8; *see also* Ans. 14. Finally, teaches Chiu, "[t]he sender transmits this packet [the beacon packet] periodically until all of its immediate members [i.e., repair heads] acknowledge the receipt of all packets sent." Chiu, col. 24, ll. 2-4; *see also* Ans. 14.

In other words, the beacon packet is sent to all members of the network, indicating transmission completion. The receivers send an ACK message to the repair head, which, in turn (when it has received an ACK message from all of its receivers), transmits a flow control telegram to the sender that all units have acknowledged receipt of the beacon. Ans. 14; *see also* Chiu, FIG. 1; Cols. 23-24, ll. 60-31. Moreover, we find that it is this latter transmission that is depicted by the arrow from repair head to sender in FIG. 1 of Chiu. Ans. 14.

We agree with the Examiner that Chiu teaches or suggests the limitation of claim 13 reciting "transmitting an additional flow control telegram from the receiver to the sender." We therefore conclude that claim 13 would have been obvious to a person of ordinary skill in the contemporaneous art over the combination of Meyer and Chiu.

<u>Claim 16</u>

Issue

Appellants argue that the Examiner erred by finding that the combination of Meyer and Chiu teaches the limitation of claim 16 reciting "checking, by the sender, whether a flow control telegram is received within a predefinable first time period after sending at least one message, and in case of an error repeating by the sender, at least one of a last sent data telegram or all last sent data telegrams of a data transmission." App. Br. 15. According to Appellants neither reference discloses or suggests this limitation. *Id.* We therefore address the question of whether the Examiner erred in so finding.

Analysis

Appellants argue that Meyer teaches that "if no acknowledgement or a nonacknowledgement message is received, the data unit that was not correctly received by the receiving peer can be retransmitted by the sending peer." App. Br. 15 (quoting Meyer, ¶ [0007]). Thus, contend Appellants, only the very last data unit (or telegram) is retransmitted. App. Br. 15. According to Appellants, a "last sent data telegram or all last sent data telegrams of a data transmission," as recited in the context of the claimed subject matter is not even discussed in any way. *Id.*

The Examiner responds that Meyer teaches that "[i]n order to ensure the reliable transmission of data, many protocols provide the feature of data unit retransmission, which means that segments from the sequence can be retransmitted if necessary …, or if no acknowledgement or a nonacknowledgement message is received, the data unit that was not correctly received by the receiving peer can be retransmitted by the sending peer." Ans. 15 (quoting Meyer, ¶ [0007]). The Examiner finds further that Meyer teaches that "the loss of a data unit or segment has occurred, such that an appropriate retransmission can take place. One such known feature is retransmission time-out, which means that after sending a data unit, a timer is monitored … then it is assumed that the data unit has been lost and it is accordingly retransmitted." Ans. 15 (quoting Meyer, ¶ [0008]). Therefore, finds the Examiner, Meyer teaches or suggests that in case of an error (i.e., data unit or segments from the sequence have been lost), retransmitting by the sender, after a predetermined time-out, of at least one of the segments from the sequence or the data unit. Ans. 15. Consequently, finds the Examiner, the combination of Meyer and Chiu teaches or suggests

the limitation of claim 16 reciting "checking, by the sender, whether a flow control telegram is received within a predefinable first time period after sending at least one message, and in case of an error repeating by the sender, at least one of a last sent data telegram or all last sent data telegrams of a data transmission." Ans. 15.

We agree with the Examiner's reasoning and adopt it as our own. Meyer explicitly discloses that "the feature of data unit retransmission, which means that segments from the sequence can be retransmitted if necessary." Meyer, ¶ [0007]. Furthermore, Meyer teaches "retransmission time-out, which means that after sending a data unit, a timer is monitored, and if a predetermined amount of time passes without having received an acknowledgement for the given data unit, then it is assumed that the data unit has been lost and it is accordingly retransmitted." Meyer, ¶ [0008]. We find, therefore, that the cited teachings of Meyer disclose or suggest the disputed limitation of claim 16 and conclude that the Examiner did not err in so finding.

<u>Claim 17</u>

Issue

Appellants next argue that the Examiner erred in finding that the combination of Meyer and Chiu discloses or suggests the limitation of claim 17 reciting "checking, by the sender, whether the receiver can be operated in a confirmed transmission mode with sending of the flow control telegram at the end of the data transmission in that the sender sends one or more test or configuration messages and checks receipt of a corresponding flow control telegram as a confirmation." App. Br. 15-16. According to

Appellants neither reference discloses or suggests this limitation. *Id.* We therefore address the issue of whether the Examiner erred in so finding.

Analysis

Appellants cite the Specification, which discloses that the "present invention … results in a very efficient improvement in network security, since the network may be operated in a confirmed transmission mode, and a conventional, highly compatible transmission protocol." App. Br. 15-16 (quoting Specification, page 4, lines 15 to 17). Therefore, Appellants contend, before communicating in the more advanced mode, the sender checks whether such operation is feasible. App. Br. 16. Appellants argue that Chiu neither discloses nor suggests sending one or more test or configuration messages to determine whether the receiver can be operated in a confirmed transmission mode, as provided for in the context of the claimed subject matter. *Id.* Appellants maintain, rather, that Chiu merely sends regular messages and includes repair head stations to retransmit messages if they are not received. *Id.*

The Examiner responds by finding that Chiu discloses that the

> [r]eceiver[s] must be able to determine when the session has completed to ensure they have received all of the data before exiting…. The sender notifies all members of session completion with a beacon packet that has the TXDONE flag set. This packet also includes the sequence number of the last data packet sent. The sender transmits this packet periodically unit all of its immediate members acknowledge the receipt of all packets sent…. When a member receives the beacon packet with the TXDONE flag set, it immediately send an ACK message to its repair head indicating whether it has received all the packets transmitted or requires more retransmissions. TRAM notifies the application when it receives all of the

> packets…. If the beacon from the sender with the TXDONE flag set is received but one or more members have not acknowledged all packets, a Hello message is sent to these members with the same information contained in the beacon packet. Members receiving this Hello message must respond in the same way that they would if they received the beacon….

Ans. 16-17 (quoting Chiu, col. 23-24, ll. 60-31). The Examiner therefore finds that the sender sends at least one message, such as the beacon packet with the TXDONE flag set or Hello message (i.e., these messages are considered as tests or configuration messages), for checking whether the member(s) (i.e., receiver(s)) receive the data unit or all packets at the end of the data transmission. Ans. 17. Then if the member (i.e., receiver) receives the packets, it sends an ACK message (i.e., a flow control telegram); otherwise it does not send the ACK message. *Id.* Thus, the Examiner finds that the member (i.e., receiver) can be operated in a confirmed transmission mode such as: (1) sending an ACK message which indicates all the packets have been received; and that (2) the ACK message sent is considered as a positive confirmed mode, whereas no acknowledgement sent is considered as a negative confirmed mode. *Id.*

We agree with the Examiner. Although the claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). We agree with the Examiner's finding that the beacon packet with the TXDONE flag set and the Hello message act as test or configuration messages and that the receipt of the ACK message and confirmation of that receipt to the sender act to "check[] receipt of a corresponding flow control telegram as a

confirmation" as recited in claim 17. We therefore conclude that the Examiner did not err in finding that the limitation of claim 17 reciting "checking, by the sender, whether the receiver can be operated in a confirmed transmission mode with sending of the flow control telegram at the end of the data transmission in that the sender sends one or more test or configuration messages and checks receipt of a corresponding flow control telegram as a confirmation."

Claim 20

Issue

Appellants argue that the Examiner erred in finding that the combination of Chiu and Meyer discloses or suggests the limitation of claim 20 reciting "an identified configuration message allows a switchover into a confirmed operating mode at any arbitrary time, to the extent that the operating mode is supported." App. Br. 16. According to Appellants neither reference discloses or suggests this limitation. App. Br. 17. We therefore address whether the Examiner so erred.

Analysis

Appellants argue that there is no teaching or suggestion in either Chiu or Meyer of a switchover into a confirmed operating mode, let alone at any arbitrary time, as provided for in the context of the claimed subject matter. App. Br. 17. According to Appellants, Chiu teaches a system that either transmits or does not operate at all. *Id.* Appellants contend that switching over from one operating mode to another is neither disclosed nor suggested by Chiu. *Id.*

The Examiner responds that Chiu teaches an identified configuration message such as a beacon packet with the TXDONE flag set or Hello message sent by the sender for checking whether the member(s) (i.e., receiver(s)) receive the data unit or all packets at the end of the data transmission (Ans. 18 (citing Chiu, cols. 23-24, ll. 60-31)), which allows the member (i.e., receiver) to be operated in a confirmed transmission mode such as: (1) sending an ACK message which indicates all the packets have been received; (2) the ACK message sent is considered as a positive confirmed mode; and (3) no acknowledgement sent is considered as a negative confirmed mode. App. Br. 18. The Examiner interprets that these modes can be switched at any arbitrary time to notify the sender whether it receives the packets. *Id.*

We agree with the Examiner's reasoning. Chiu teaches a multicast communication system with a confirmed operating mode, as the Examiner finds. Chiu, col. 2, ll. 58-60. We find the Examiner's interpretation that the confirmed modes can be switched at an arbitrary time is reasonable in light of the teachings and suggestions of Chiu. Ans. 18. We therefore find that the Examiner did not err in finding that the combination of Chiu and Meyer teach or suggest the limitations of claim 20.

<u>Claim 21</u>

Issue

Appellants contend that the Examiner erred in finding that the combination of Meyer and Chiu teaches or suggests the limitation of claim 21 reciting "checking to determine whether the sender receives the flow control telegram after the test or configuration message within a

predefinable second time period." App. Br. 17. According to Appellants neither reference discloses or suggests this limitation. *Id.* We therefore address the issue of whether the Examiner so erred.

Analysis

The Appellants argue that the Examiner erred because neither the "ACK" nor the "TXDONE" flags taught by Chiu disclose whether the sender receives the flow control telegram. App. Br. 17. According to Appellants, even if the "ACK" or "TXDONE" indicate whether some receiver has received information, this is wholly different from checking to determine whether the sender receives the flow control telegram. *Id.* Therefore, argue Appellants, the feature of "checking to determine whether the sender receives the flow control telegram after the test or configuration message" is neither disclosed nor suggested by Chiu. App. Br. 17-18.

The Examiner responds that Chiu discloses a Hello message sent to the receivers with the same information contained in the beacon TXDONE packet to check whether the sender received the ACK message (i.e., the flow control telegram) within a predefinable second time period. Ans. 19. The Examiner finds that Chiu teaches that:

> If the beacon from the sender with the TXDONE flag set is received but one or more members have not acknowledged all packets, a Hello message is sent to these members with the same information contained in the beacon packet. Members receiving this Hello message must respond in the same way that they would if they received the beacon. If the repair head still doesn't hear from its members after sending the Hello, it retries several times. After a period of time it gives up on the member and removes it from the member list.

Ans. 19-20 (quoting Chiu, col. 24, ll. 17-26; *see also* FIG. 1). Therefore, finds the Examiner, Chiu discloses or suggests "checking to determine whether the sender receives the flow control telegram after the test or configuration message within a predefinable second time period." Ans. 21.

We are persuaded by the Examiner's reasoning and adopt it as our own. We find that Chiu teaches that the sender does not exit the session until it has received the flow control telegram from the repair heads that all receivers have either sent an ACK message signaling receipt of the TXDONE beacon packet or have been removed from the member list for repeatedly failing to respond to Hello messages over a predetermined interval. Ans. 21; Chiu, cols. 23-24, ll. 64-27. Specifically, the sender may not exit the session until it all of its members acknowledge the receipt of all packets sent. Chiu, col. 24, ll. 2-4. We conclude that the Examiner did not therefore err in concluding that Chiu discloses or suggests the limitation of claim 21 reciting "checking to determine whether the sender receives the flow control telegram after the test or configuration message within a predefinable second time period."

<u>Claims 33-36</u>

Issue

Appellants argue that the Examiner erred in rejecting claims 33-36. App. Br. 20. According to Appellants, claims 33-36 depend from claim 32 which includes the feature of "executing according to ISO protocol 15765-2" although claims 33-36 do not explicitly recite that limitation. *Id.* We therefore address the issue of whether the Examiner so erred.

Analysis

Appellants point to the Final Office Action's assertion that Chiu and Meyer disclose the limitation reciting "executing according to ISO protocol 15765-2", however Appellants submit that the references are silent with respect to this limitation.

The Examiner admits that Meyer and Chiu do not disclose the disputed limitation, but notes that the Examiner cited Cach, which discloses this limitation. Ans. 21. This reference was cited against claim 32, which explicitly recites "executing according to ISO protocol 15765-2." *Id.* (citing Cach, 5-6, § 3.3).

We are persuaded by Appellants' reasoning. Claims in dependent form include all the limitations of the claim incorporated by reference into the dependent claim. 35 U.S.C. § 112(d). Consequently, claims 33-36 incorporate by reference the disputed limitation. Although Cach was cited as teaching or disclosing the limitation of claim 32 reciting "executing according to ISO protocol 15765-2," which Appellants do not dispute, Cach was not cited in the rejection of claims 33-36. Ans. 9. The Examiner admits that Meyer and Chiu are silent with respect to the disputed incorporated limitation of claims 33-36. Ans. 20. Consequently, we reverse the Examiner's rejection of the limitation reciting "executing according to ISO protocol 15765-2" as being obvious over the combination of Meyer and Chiu.

Claim 37

Issue

Appellants argue that the Examiner erred in finding that the limitation of claim 37 reciting "the sender repeats at least one of a last sent data telegram and all last sent data telegrams of a data transmission." App. Br. 21. According to Appellants neither reference discloses or suggests this limitation. *Id.* We therefore address the issue of whether the Examiner so erred.

Analysis

Appellants argue that Meyer teaches that "if no acknowledgement or a nonacknowledgement message is received, the data unit that was not correctly received by the receiving peer can be retransmitted by the sending peer." App. Br. 21 (quoting Meyer, ¶ [0007]). According to Appellants, Meyer therefore teaches that only the very last data unit (or telegram) is retransmitted. *Id.* Furthermore, Appellants contend, neither Chiu nor Cach cure this deficiency.

The Examiner responds that Meyer discloses that:

> [i]n order to ensure the reliable transmission of data, many protocols provide the feature of data unit retransmission, which means that segments from the sequence can be retransmitted if necessary …, or if no acknowledgement or a non-acknowledgement message is received, the data unit that was not correctly received by the receiving peer can be retransmitted by the sending peer.

Ans. 21 (quoting Meyer, ¶ [0007]). The Examiner further finds that Meyer teaches that:

> the loss of a data unit or segment has occurred, such that an appropriate retransmission can take place. One such known feature is retransmission time-out, which means that after sending a data unit, a timer is monitored … then it is assumed that the data unit has been lost and it is accordingly retransmitted.

Ans. 21 (quoting Meyer, ¶ [0008]). The Examiner therefore finds that Meyer teaches or suggests that, in a case of an error (i.e., the data unit or segments from the sequence is lost), retransmitting by the sender of at least one of the segments from the sequence or the data unit (i.e., the sequence or the data unit is considered as all last sent data segments of the data transmission). Ans. 21-22. Therefore, the Examiner finds, a last sent data segment is included in the data unit or sequence. Ans. 22. Examiner interprets that an appropriate retransmitting step is corresponds to the claimed repeating step performed by the sender. *Id.*

We are persuaded by the Examiner's reasoning and adopt it as our own. We agree with the Examiner that the retransmission step taught or suggested by Meyer and quoted *supra* discloses or suggests the limitation of claim 37 reciting "repeats at least one of a last sent data telegram and all last sent data telegrams of a data transmission." We consequently find that the Examiner did not err in finding that the combination of Meyer, Chiu and Cach discloses or suggests the limitations of claim 37.

NEW GROUND OF REJECTION

We enter the following new grounds of rejection for dependent claims 33-36 under the provisions of 37 C.F.R. § 41.50(b).

Claim 33-36 are newly rejected as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer, Chiu, and Cach. Dependent claims 33-36 depend from independent claim 32 which recites:

> 32. The device as recited in claim 24, wherein the data transmission is executed according to ISO protocol 15765-2, wherein a first flow control telegram type is used as a positive confirmation and a second flow control telegram type is used as a negative confirmation, and wherein the sender checks whether the receiver can be operated in a confirmed transmission mode with sending of the flow control telegram at the end of the data transmission in that the sender sends at least one test or configuration messages and checks receipt of a corresponding flow control telegram as a confirmation.

Claims App'x 4. Dependent claims 33-36 incorporate by reference all of the limitations of claim 32. 35 U.S.C. § 112(d). Specifically, we find that the limitation of claim 32 reciting "wherein the data transmission is executed according to ISO protocol 15765-2" is anticipated by Cach. Cach, 5-6, § 3.3. We do not sustain the Examiner's 35 U.S.C. § 103(a) rejection of claims 33-36. Claims 33-36 are newly rejected.

DECISION

The Examiner's rejection of claims 13,15-24, 26-31, 37-49, and 51-54 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer and Chiu is affirmed.

The Examiner's rejection of claims 33-36 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer and Chiu is reversed.

The Examiner's rejection of claims 14, 25, 32, and 50 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Meyer, Chiu, and Cach is affirmed.

We have also entered a new ground of rejection under 37 C.F.R. § 41.50(b) for dependent claims 33-36.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner….
>
> (2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record….

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). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED-IN-PART

37 C.F.R. § 41.50(b)

msc