UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VIC ALFANO

Appeal 2008-1684
Application 10/295,399
Technology Center 2100

Decided: September 23, 2008

Before JAMES D. THOMAS, JEAN R. HOMERE,
and JAY P. LUCAS, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 through 16. We have jurisdiction under 35 U.S.C. § 6(b).

As best representative of the disclosed and claimed invention, independent claim 1 is reproduced below:

1. A system for reordering packet segments in a packet switched network, wherein a plurality of source processors transmit the packet segments to a destination processor via one or more network fabrics, the system comprising:

encoder logic at each source processor that operates to associate a unique segment identifier with each of the packet segments before they are transmitted;

a memory located at the destination processor;

map logic at the destination processor that operates to receive the packet segments,

map the segment identifier associated with each of the packet segments to a memory region in the memory, and

store each received packet at its respective memory region; and

a dequeue processor coupled to the memory and operable to determine when enough packet segments are stored in the memory to form a complete packet, wherein the dequeue processor operates to output the packet segments that form the complete packet.

The following reference is relied on by the Examiner:

Chapman	US 6,246,684 B1	Jun. 12, 2001

Claims 1 through 16 stand rejected under 35 U.S.C. § 103(b) as being anticipated by Chapman.

Rather than repeat verbatim the positions of the Appellant and the Examiner, we refer to the Brief and Reply Brief for Appellant's positions, and to the Answer for the Examiner's positions.

OPINION

For the reasons set forth by the Examiner in the Answer, as expanded upon here, we sustain the rejection of claims 1 through 16 under 35 U.S.C. § 102. Appellant argues the features of independent claim 1 as representative of the same features set forth in independent claims 1, 7, and 11 based upon the arguments presented at pages 5 through 8 of the principal Brief on appeal. Separate arguments are presented as to dependent claim 4 as representative of claims 4 and 14, and separate arguments are presented as to dependent claim 5 as representative of claims 5 and 15. These will be addressed in turn.

Of the features presented in representative independent claim 1 on appeal, Appellant presents arguments as to the encoder logic clause as well as the dequeue processor clause at the end of this claim on appeal. The three reasons set forth for reversal of the rejection at pages 4 through 9 of the Brief relate to these two features.

At the outset, we observe in passing that the reordering feature of the preamble of the independent claims on appeal is not established by the actual recitations in the body of the argued claims on appeal. In this respect, even the title of Chapman meets this feature of the preamble of these claims. Thus, they would then appear to read upon the subject matter of Appellant's admitted prior art figure 1 and the artisan's understanding of the discussion of this figure beginning at Specification page 1, line 11 through the discussion at least at page 2, line 12, since no reordering is taught there. Appellant's contribution in the art is the reordering of sequenced-based packet segments. According to the showing in admitted prior art figure 1,

the corresponding discussion appears to equate data frames with data packets, all of which are shown in this figure. Figure 1 illustrates prior art source processors in communication with a destination processor with various frames/data packets. Significantly, the discussion at Specification page 2, lines 8 through 12, indicates that it was known in the art to transmit data frames/packets that have been segmented before transmission.

Appellant's initial position of the three allegations urging patentability of claim 1 on appeal as expressed at pages 5 and 6 of the principal Brief on appeal is that Chapman itself does not disclose associating a segmented identifier but instead discloses inspecting already assigned sequence numbers. We consider this position misplaced since it is clear from Appellant's own discussion of Chapman as well as Appellant's admitted prior art that segmentation was known in the art. Packets were known to be reordered in Chapman based upon their sequence numbers in an attempt to restore the original order of the data packets as expressed initially in the abstract, in the discussion at columns 7 and 8, and in the paragraph bridging columns 9 and 10. The modified teachings at column 13 beginning at line 37 indicate as well that ordering of packets can occur on the basis of sequence numbers associated with them in the reordering process. Figure 7 shows, and the corresponding discussion of it at the bottom of column 7 teaches, that 16 bit identification fields were known to include segment numbers or sequence identification numbers, which are also illustrated in figures 3 and 8. Figure 2 of Chapman illustrates that the flow of the

reordering taught in this reference is done by reordering the queue memory-based data on the basis of ID numbers as well. Again, the specific teachings at column 7 beginning at line 42 are also pertinent to this understanding.

Thus, the artisan would clearly understand that these teachings relate to the association of segmented identifiers to the extent claimed even though they already may have been assigned by an originating host computer. Nevertheless, the reference does teach that some form of encoding logic was known in the art. In like manner, in accordance with the second argued position at page 6 of the principal Brief on appeal, Chapman does indicate that it was known in the art to segment the packets in addition to Appellant's own recognition thereof of the prior art approaches identified at Specification page 2, lines 8 through 12, and further that such segmentation occurs before the packets are transmitted from the host source. Chapman himself does not have to teach that the actual segmentation of the packets occurs within his own contributions in the art for anticipation of these argued features to obtain.

Lastly, we treat the third and last argued position that Chapman does not disclose determining when enough packet segments are stored in a memory to form a complete packet, which segments are later said to be outputted such as to form a complete packet as recited in the dequeue processor clause at the end of the claim 1 on appeal. To the extent Appellant's actual arguments appear to urge the claimed formation and outputting of a complete packet from packet segments, the claim does not necessarily require this, only to output packet segments that form a complete packet. The actual formation of a complete packet by the dequeue processor

is not positively recited, however. Additionally, the abstract of Chapman indicates that once the intervening storage medium or queueing process of intercepting packets and temporarily holding them to allow intermediate data packets that have been delayed in slower pathways catch-up, they are reordered in such a manner as to output them in a correct order once they have all been received. This feature is also taught at column 3, lines 49 through 55. In this regard as well, the Examiner has noted the teachings at column 1, lines 28 through 31, that a packet or portions of a packet may be characterized as data traffic units. When taken with the other teachings of the reference that the reordering occurs with respect to sequence numbers or ID numbers, the outputting of completed packets occurs as generally illustrated in figure 2.

As to the features of representative dependent claim 4, argued at page 8 of the principal Brief, the source identifier appears to be illustrated in Appellants prior art figure 1 and Chapman's figure 7.

Turning to the priority level feature argued as to dependent claim 5 at the bottom of page 8 of the principal Brief on appeal, the ordering of the frames/packets is illustrated in Appellant's prior art figure 1 (such as numerical identifiers 0 through 2) and in the order of the ID numbers/sequence numbers in Chapman. The Reply Brief in turn essentially repeats the arguments presented in the principal Brief on appeal.

In view of the foregoing, the decision of the Examiner rejecting claims 1 through 16 under 35 U.S.C. § 102 is sustained since Appellant has not presented persuasive arguments of patentability and has shown no error in the Examiner's positions. Therefore, we affirm the Examiner's decision.

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

AFFIRMED

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