THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER NAGEL and HANS-GEORG KELLER

Appeal No.1998-3047
Application No. 08/576,539[1]

ON BRIEF

Before THOMAS, RUGGIERO, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 7-9.

We affirm.

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[1] Application for patent filed December 21, 1995.

BACKGROUND

The invention is directed to a network transmission system having an evaluation unit for storing and updating information regarding network status. Claim 7 is reproduced below.

> 7. A transmission system comprising a plurality of network nodes for receiving and transmitting packets which contain connection-related status information signals about the transmission system in the form of OAM cells, characterized in that a network node comprises at least one evaluation unit which:
>
> stores connection-related status information signals extracted from a packet in a table, and
>
> irrespective of an order of received packets, periodically performs a postprocessing function which determines current, connection-related statuses in a given order for each connection based upon any statuses previously stored in the table and determined thus far, as well as on the received, connection-related status information signals.

The examiner relies on the following reference:

Miyagi et al. (Miyagi)	5,461,607	Oct. 24, 1995 (filed May 31, 1994)

We refer to the Final Rejection (Paper No. 10), the Supplemental Final Rejection (Paper No. 12), and the Examiner's Answer (Paper No. 17) for a statement of the examiner's position. We refer to the Brief (Paper No. 16) for appellants' position.

Claims 1-6 have been canceled.

Claims 7-13 were objected to in the Final Rejection and the Supplemental Final Rejection. However, the examiner has withdrawn the objection to the claims. (Answer, page 2.)

Claims 10-13 have been allowed. (Id.)

Claims 7-9 stand rejected under 35 U.S.C. § 103 as unpatentable over Miyagi.

OPINION

Grouping of Claims

Appellants present arguments for Claim 7 in view of the applied reference on pages 6 and 7 of the Brief. Appellants separately argue Claim 9 on pages 7 and 8 of the Brief. Accordingly, we will consider the merits of each of Claims 7 and 9, with Claim 8 standing or falling with Claim 7. See 37 CFR § 1.192(c)(7).

Claims 7 and 8

The examiner refers to column 5, line 63 to column 6, line 42 and Figs. 4 and 5 of Miyagi as the most pertinent portion of the reference. (Answer, pages 4-5.)

Appellants respond that the reference apparatus "does not teach nor suggest that status determinations are made irrespective of the order of the received packets." (Brief, page 6.) Appellants state that "it is clear that the circuit 111 [the fault detection and notification circuit detailed in Fig. 4 of Miyagi] evaluates only the connections which relate to the current cell or packet." (Id. at 7.) The allegations are based on appellants' interpretation of the reference. "Miyagi looks up and responds to information relating to those connections which relate to the virtual path or virtual connection which is

the subject of a current Alarm Indication Signal (AIS cell)." (Id. at 6.) "There is no periodic evaluation of the failure states 618 or failure information

621 data stored in the tables, to determine whether an OAM signal should be generated." (Id. at 7.)

Miyagi discloses, in the section identified by the examiner, that Cell Monitor 611 (Fig. 4) allows comparison of a received cell[2] with the AIS (Alarm Indication Signal) cell pattern memory 615. If the

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cell contains the proper OAM and function type fields to yield a match, then table accessing unit 616 allows access to VP Table-2 623.

The VP Table-2 contains a data record including failure state 618, state management timer 619, monitor/drop bit 620, and failure information 621. The structure of VP Table-2 is shown in Fig. 5B, with Virtual Path information corresponding to each Virtual Path Identifier address 617 (Fig. 4).

The following section of Miyagi explains the operation of state transition decision unit 624, which acts on VP Table-2:

> Of the contents of the VP table-2 623, the failure state 618 and the timer 619 correspond to the state and the VP-AIS cell non-reception timer shown in FIG. 8 and they are supplied to a state transition decision unit 624 and values updated in accordance with the state transition diagram of FIG. 8 are written onto the VP table 623. When the state is changed to the failure state or the failure state is recovered to the normal state by the decision of the state transition decision unit 624 and the notification to the host processor is required, the failure notification signal is supplied to the table accessing unit 616 by a signal S9 and it is notified to an MPU interface 601 through the table accessing unit 616 and to the host processor through the signal line 631.

Miyagi, column 6, lines 30-42.

Miyagi's Figure 4, a portion of which is reproduced below, illustrates the action of the decision unit on VP Table-2.

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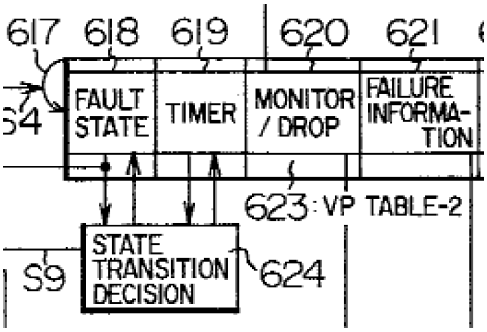
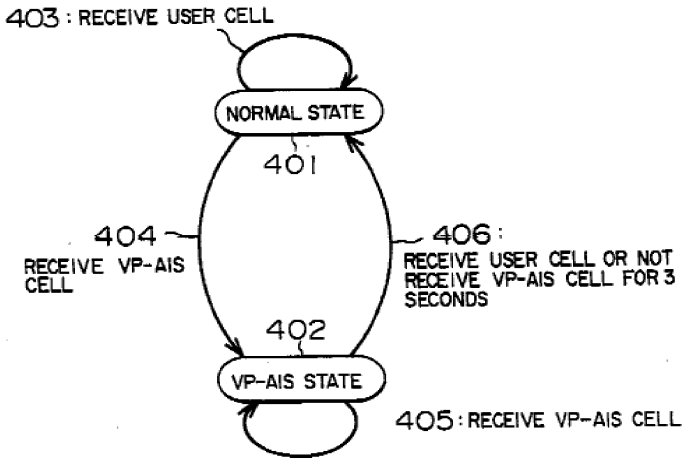


Miyagi Figure 4 - Detail

Miyagi's Figure 8 discloses the logic for determining when VP Table-2 623 is to be updated.



Miyagi Figure 8

As revealed in Figure 8, the state changes from the AIS state to the normal state upon the occurrence of either of two events: a user (non-AIS) cell is received; or an AIS cell is not received for three seconds. The state transition decision unit notifies the host processor when a state changes to "normal" or "AIS." The only way the decision unit could determine if three seconds have passed since an AIS cell reception is to periodically update timer 619 in VP Table-2. As shown in Figure 4, the

state transition decision unit both reads and writes to the failure state 618 entry, to monitor and update the status. The decision unit also reads and writes to timer 619, to update and monitor the particular timer for the corresponding virtual path in order to, for example, update the failure state 618 entry to "normal," and notify the host processor, when the timer reflects that an AIS cell has not been received for three seconds.

Thus, contrary to appellants' arguments, status determinations are made irrespective of the order of the received packets. The VP Table-2 contains historical status information. The circuitry does more than evaluate connections which relate to the current cell or packet as it is received.

We therefore sustain the rejection of Claims 7 and 8 under 35 U.S.C. § 103 over Miyagi.

Claim 9

Appellants contend, on pages 7 and 8 of the Brief, that Miyagi fails to disclose a "postprocessing circuit" and a "monitoring circuit" as set forth in Claim 9. However, the reference discloses a "monitoring circuit" that is very much like appellants' disclosed "monitoring circuit," and certainly no different from that claimed. As shown in Fig. 1 of Miyagi, line connection/terminator 101 monitors the physical line and notifies the fault detection circuitry via

channel failure signal 110 when a fault is detected. (Channel failure signal 110 is also shown near the top left of Fig. 4 of the reference.)

We agree with the examiner, as pointed out on page 7 of the Answer, that the "postprocessing circuit" as claimed reads on AIS cell generator 102 (Fig. 4). We add that the "postprocessing circuit" also reads on several alternative structures, such as FERF[3] cell generation unit 625 (Fig. 4), since the claimed "circuit" is not required to perform any function except for the implicit function of receiving information from the monitoring circuit. As the Miyagi disclosure details, in particular at column 6, lines 43-50, in the case that the "monitor/drop bit" is set to "drop" (i.e., the virtual path ends at this particular physical line termination), a VP-FERF cell is generated. The VP-FERF cell includes failure information from cells received in cell stream 107 (Fig. 4), as well as information received from the circuitry's own AIS cell generator 102. Information concerning a line or connection failure at this location would eventually be processed by FERF cell generation unit 625, in the event that this physical line termination is at the end of the virtual path. Information from the monitoring circuit, concerning a line defect, is thus passed on to FERF cell generation unit 625.

We therefore sustain the rejection of Claim 9 under 35 U.S.C. § 103 over Miyagi.

[3]"Far End Receive Failure," according to column 1, lines 34-43 of Miyagi.

CONCLUSION

The rejection of Claims 7-9 is affirmed.

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

AFFIRMED

JAMES D. THOMAS Administrative Patent Judge	)
JOSEPH F. RUGGIERO Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)

hb/vsh

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