

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BHARAT T. DOSHI, N. FARBER,
P. HARSHAVARDHANA, RAJIV KAPOOR,
ARIK KASHPER, STEVEN S. KATZ,
KATHLEEN S. MEIER-HELLSTERN
and THOMAS S. GUIFFRIDA

Appeal No.1998-0291
Application 08/360,894

ON BRIEF

Before KRASS, BARRETT, and HECKER, **Administrative Patent Judges**.

HECKER, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 17, all claims pending in this application.

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The invention relates to an architecture for telecommunications networks comprising Asynchronous Transfer Mode (ATM) switches interfacing with networks comprising Synchronous Transfer Mode (STM) switches. Signaling information received from an STM switch via in-band signaling is supplied to an ATM switch that will route the associated call to its intended destination by converting the signaling information to a form suitable for transmission to the ATM switch via an out-of-band signaling network. Signaling System 7 (SS7), an out-of-band type signaling, is used to convert in-band STM signaling to out-of-band STM signaling. A terminal adapter translates STM protocols to ATM protocols.

Representative independent claim 10 is reproduced as follows:

10. A method of interfacing an ATM switch of an ATM network with an STM switch that employs in-band signaling to transmit telephone-call signaling information to said ATM switch, said ATM switch interfacing with an out-of-band signaling network for the purpose of receiving signaling information, said method comprising the steps of

interfacing said in-band signaling when it is received from said STM switch with said out-of-band signaling network, and

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responsive to receiving from said STM switch, via a trunk having a predetermined identity and connecting said STM switch to said ATM switch, in-band signaling information

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indicative of at least a called telephone number, converting said in-band signaling to out-of-band signaling by forming an out-of-band signaling message containing at least the identity of said trunk and said called number and transmitting said message over said out-of-band signaling network to said ATM switch.

The Examiner relies on the following references:

Thorn et al. (Thorn)	5,086,461	Feb. 4, 1992
Fuller et al. (Fuller)	5,282,244	Jan. 25, 1994
Isono	5,363,433	Nov. 8, 1994

Appellants' Admitted Prior Art (APA)

U.S. Patent Application Serial No. 08/360,897, now Patent No. 5,568,475, Doshi et al. (Doshi)

Claims 1 through 17 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 5 and 11 through 14 of Doshi in view of APA.

Claims 1, 2, 7, 8, 10, 15 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fuller in view of Isono and Thorn.

Claims 9 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fuller in view Thorn and Isono and further in view of APA.

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief and answer for the respective details thereof.

OPINION

After a careful review of the evidence before us, we will not sustain the rejection of claims 1 through 17 under the judicially created doctrine of obviousness-type double patenting, however we will sustain the rejection of claims 1, 2, 7 through 10 and 15 through 17 under 35 U.S.C. § 103.

With respect to the rejection of claims 1 through 17 for obviousness-type double patenting, the Examiner contends Doshi's claims include all the limitations of the instant claims with the exception of MF or bit borrowing in-band signaling. The Examiner notes that page 2, lines 16-37 of the present application states that MF and bit borrowing are well known in the art and are widely implemented in present systems.

(Answer-page 2.)

Appellants argue that Doshi claims only out-of-band

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signaling while claims of the instant case recite receiving in-band signaling. (Brief-page 3.)

While the Examiner's response notes certain features such as off-hook and telephone digits (answer-page 4) are inherent to in-band signaling, we see none of these features recited in the claims of Doshi. Even if these features were recited in Doshi's claims, the Examiner presented no evidence that off-hook and telephone digits are **only** inherent to in-band signaling. Without the identification of such features in Doshi's claims, **and** evidence that such is exclusive to in-band signaling, we are unconvinced that Doshi's claims include in-band signaling as required by the instant claims. Thus, aside from the fact that other references, such as Fuller, may show the existence of in-band to out-of-band conversion as commonly practiced, the Examiner's rejection has not established a **prima facie** case. Accordingly, we will not sustain the obviousness-type double patenting rejection of claims 1 through 17.

With respect to the art rejection of claims 1, 2, 7, 8, 10, 15 and 16, the Examiner reasons that Fuller discloses

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the claimed method of interconnecting several, "possibly dissimilar ... networks via a SS7; i.e. out-of-band; signaling network" (answer-page 2). The Examiner notes, Fuller lacks disclosure of conversion from in-band signaling to out-of-band signaling, and lacks disclosure of ATM networks. The Examiner cites Thorn for teaching in-band to out-of-band conversion, and Isono for the out-of-band use of ATM networks. The Examiner states:

It would have been obvious to an artisan at the time of invention that the interconnected networks of Fuller could include the upgraded equipment as disclosed by Thorn for the purpose of providing enhanced capability to existing equipment, the motivation being to upgrade older switching equipment without the prohibitive expense of complete replacement. Further, it would have been obvious to an artisan to include an ATM network among the interconnected networks of Fuller, out-of-band signaling for ATM networks being known in the art as evidenced by Isono, for the purpose of interworking between older networks and newer ATM networks as they are installed, the motivation being to provide network users with the broadband capabilities of ATM. [Answer-page 3.]

Appellants note that Fuller deals strictly with STM networks and not ATM networks, Thorn teaches interfacing an STM (in-band) switch with an SS7 (out-of-band) network (also

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STM), and Isono deals strictly with ATM (out-of-band) networks. Thus, Appellants argue, there is no motivation taught or suggested to interface an ATM switch/network with an STM switch/network. The only such teaching resides in Appellants' own specification. (Brief-pages 4 and 5.)

We note that Fuller is looking to provide new services to users, such as ISDN. Fuller states "The invention also allows users to provide new revenue generating services (such as ISDN) which require SS7 capabilities." (Column 2, lines 47-49.) Isono discloses increasing need for multimedia communication using ISDN based on ATM (column 6, lines 30-38). Thus we agree with the Examiner that it would have been obvious to adapt SS7, which uses out-of-band signaling, to ATM, also using out-of-band signaling, to provide broad band ISDN, contemplated by Fuller, via ATM networks. Appellants also acknowledge the need to adapt STM to ATM as recognized in the art, wherein their specification states:

It is also unlikely that a telecommunications carrier (LEC or IXC) will replace its entire STM network at once with a B-ISDN/ATM network, but will more likely migrate toward that end in stages such that during intermediate stages of the conversion a

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network may be composed of STM and ATM elements. Accordingly, there will be a need to develop technology that will gracefully interface STM elements with ATM elements and allow ATM type switches to interface with the different types of existing signaling networks. **The need for such interfacing has been recognized**, but has been limited to the transport of user information only. [Page 3, lines 12-21, emphasis added.]

Accordingly, Appellants' arguments regarding the adaptation of STM networks to ATM networks is not only obvious as reasoned by the Examiner, but is acknowledged as recognized in the art by Appellants' specification. Claims 1 and 10 are directed broadly to the concept of interfacing STM with ATM networks and are fully met by the Examiner's rejection. Thus, we will sustain the rejection of claims 1 and 10, under 35 U.S.C. § 103.

The details for accomplishing the adaptation are recited in claims 3 through 6 and 11 through 14. The Examiner has not rejected these claims on art. whether or not these details may be inherent in the differences of the STM and ATM protocols, such a rejection is not before us.

With regard to claims 2 through 9 and 11 through 17

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(brief-bottom of page 5 to top of page 6), Appellants recite a list of details, (a) through (f) that are allegedly missing in the cited art. We note first, this not considered an argument in accordance with 37 C.F.R. § 1.192 (8)(iv). Second, half of these claims are not even subject to the art rejection. Thus, we can not relate this list to the rejected claims, and even if we could, a mere list of claimed limitations is not considered an argument. Thus, we will also sustain the rejection of claims 2, 7, 8, 15 and 16.

With regard to the rejection of claims 9 and 17, the Examiner notes that "bit borrowing" is well known and acknowledged by Appellants as prior art. Appellants have not contested this. Appellants argue that bit borrowing has not been shown to be used in their claimed way, in an ATM/STM interface (brief-page 7). Without any showing of incompatibility, we see nothing to rebut the Examiner's reasoning that bit borrowing, which is in-band STM (and claimed as such), will adapt to SS7 out-of-band STM, and then be adapted to out-of-band ATM. Thus, we will sustain the Examiner's rejection of claims 9 and 17.

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The Examiner has set forth a *prima facie* case. The Examiner has established why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. *In re Sernaker*, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). Applicants have not overcome the *prima facie* case with argument and/or evidence.

In view of the foregoing, the decision of the Examiner rejecting claims 1, 2, 7, 8, 9, 10, 15, 16 and 17 under 35 U.S.C. § 103 is affirmed; however, the decision of the Examiner rejecting claims 1 through 17 under the judicially created doctrine of obviousness-type double patenting is reversed.

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

AFFIRMED-IN-PART

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Administrative Patent Judge)
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) BOARD OF PATENT
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