Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SWEE B. LIM, PETER B. KESSLER, SANJAY R. RADIA,
and GRAHAM HAMILTON

Appeal No. 2001-1362
Application No. 08/670,684

ON BRIEF

Before THOMAS, HAIRSTON, and FLEMING, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 7, 23 through 29 and 42 through 44.

The disclosed invention relates to a distributed client/server based computing system and method in which a call from client objects to servant objects is routed using a remote method table and a transport layer when the client and the server do not share the same process, and in which a

call from client objects to servant objects is routed using a local method table and bypasses the transport layer when the client and the server do share the same process.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. In a distributed client /server based computing system having a dispatch mechanism for dispatching a call from client objects to servant objects that includes a transport layer, and a method table dispatch layer on the client side that is above the transport layer, the method table dispatch layer including a plurality of local method tables and a plurality of remote method tables, wherein a first set of selected client representations are associated with a local method table selected from the plurality of local method tables and a second set of selected client representations are associated with a remote method table selected from the plurality of method tables, the local method table including local dispatch information and the remote method table including remote dispatch information, a method of routing a call from a client to a servant, the method comprising:

routing the call using the remote table and the transport layer when the client and servant do not share the same process; and

routing the call using the local method table and bypassing the transport layer when the client and servant do share the same process.

The references relied on by the examiner are:

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| Danforth | 5,493,680 | Feb. 20, 1996 |
| Kapoor et al. (Kapoor) | 5,682,534 | Oct. 28, 1997 |

Hamilton et al. (Hamilton), "Subcontract: A flexible base for distributed programming," Proceedings of the 14th Symposium on Operating Systems Principles, Asheville, N.C., December 1993.

Claims 1 through 7, 23 through 29 and 42 through 44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kapoor in view of Hamilton and Danforth.

Reference is made to the briefs (paper numbers 19 and 21) and the answer (paper number 20) for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through 7, 23 through 29 and 42 through 44.

We agree with the examiner (answer, page 3) that Hamilton discloses a distributed client/server computer system in Section 2. The examiner is of the opinion (answer, pages 3 and 4) that Hamilton discloses a servant, dispatch mechanism, client objects, servant objects and remote dispatch information in Section 4. With respect to the claimed remote and local method tables, we do not agree with the examiner (answer, page 4) that Hamilton discloses a remote method table and a local method table in Section 4. Hamilton discloses a method table in Section 4 that is not divided in the same manner as the claimed local and remote method tables. The examiner acknowledges (answer, page 4) that Hamilton does not explicitly disclose dispatch mechanism. Turning to the teachings of Kapoor, we agree with the examiner (answer, page 4) that Kapoor discloses "routing the call to bypass the transport layer" (column 6, lines 1 through 9). The examiner's contentions (answer, page 4) to the contrary notwithstanding, Kapoor does not base the routing decision on whether the client and the servant share or do not share the same process. In fact, Kapoor makes clear (Abstract; column 5, line 11 through column 6, line 20) that the distributed computer system operates on a client process and a server process. Kapoor is silent as to whether the two processes are the same or differ from one another. In spite of the lack of such a teaching in Kapoor, the examiner nevertheless concludes (answer, page 4) that it would have been obvious to one of ordinary skill in the art to combine the teachings of Kapoor with those of Hamilton because "it

incorporates the ability [to] bypass the transport for the purpose of efficiently sending calls to remote systems." Although the examiner indicated supra that Hamilton discloses a local method table as well as a remote method table, the examiner acknowledges (answer, page 4) that the combined teachings of Hamilton and Kapoor lack "local method table and local dispatch information." The examiner states (answer, page 4) that Danforth teaches "local dispatch information (dispatch) (col. 20-21, lines 1-68)," and that "[i]t would be obvious to one of ordinary skill in the art at the time of the invention to use the local method table and dispatching mechanism of Danforth the client/server system of Hamilton as modified by Kapoor because it allows the ability to maintain local state information of an object and the ability to invoke an object locally on client system."

Appellants argue (brief, page 9) that:

> Although Kapoor et al. teaches routing calls from a client to a servant, and Hamilton et al. teaches the concept of a method table, it is respectfully submitted that no combination of Kapoor et al., Hamilton et al., and Danforth teaches the claimed method. Specifically, no combination of Kapoor et al., Hamilton et al., and Danforth[.] teaches or suggests routing a call using a local method table and bypassing a transport layer when a client and a servant share the same process. Further, no combination of Kapoor et al., Hamilton et al., and Danforth teaches or suggests routing a call using a remote method table and a transport layer when a client and a servant do not share the same process.

We agree with appellants' arguments. We additionally agree with appellants' argument (reply brief, page 3) that "since Hamilton et al. and Danforth each teach of only a single method table, while neither differentiates between local and remote procedure calls, and since Kapoor et al. does not mention the use of method tables, combining the teachings of Kapoor et al., Hamilton et

al., and Danforth would not result in the existence of a local method table with local dispatch information and a remote method table with remote dispatch information."

Based upon the foregoing, the rejection of claims 1 through 7, 23 through 29 and 42 through 44 is reversed because of the lack of a prima facie case of obviousness.

DECISION

The decision of the examiner rejecting claims 1 through 7, 23 through 29 and 42 through 44 under 35 U.S.C. § 103(a) is reversed.

REVERSED

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| JAMES D. THOMAS<br>Administrative Patent Judge | )<br>)<br>)<br>) |
| KENNETH W. HAIRSTON<br>Administrative Patent Judge | ) BOARD OF PATENT<br>) APPEALS<br>) AND<br>) INTERFERENCES |
| MICHAEL R. FLEMING<br>Administrative Patent Judge | )<br>)<br>) |

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***Letty***

# JUDGE HAIRSTON

**APPEAL NO. 2001-1362**

**APPLICATION NO. 08/670,684**

APJ HAIRSTON

APJ FLEMING

APJ THOMAS

DECISION: **REVERSED**
**PREPARED**: May 12, 2004

**OB/HD**
**PALM**
**ACTS 2**
**DISK (FOIA)**
**REPORT**
**BOOK**