(12) **United States Patent**
Koster et al.

(10) **Patent No.:** **US 7,698,509 B1**
(45) **Date of Patent:** **Apr. 13, 2010**

(54) **SNOOPING-BASED CACHE-COHERENCE FILTER FOR A POINT-TO-POINT CONNECTED MULTIPROCESSING NODE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 873 days.

(21) Appl. No.: **10/889,952**

(22) Filed: **Jul. 13, 2004**

(51) **Int. Cl.**
G06F 12/00 (2006.01)
(52) **U.S. Cl.** **711/146**; 711/144; 711/145; 711/128; 711/119; 711/E12.032; 711/E12.042
(58) **Field of Classification Search** 711/146
See application file for complete search history.

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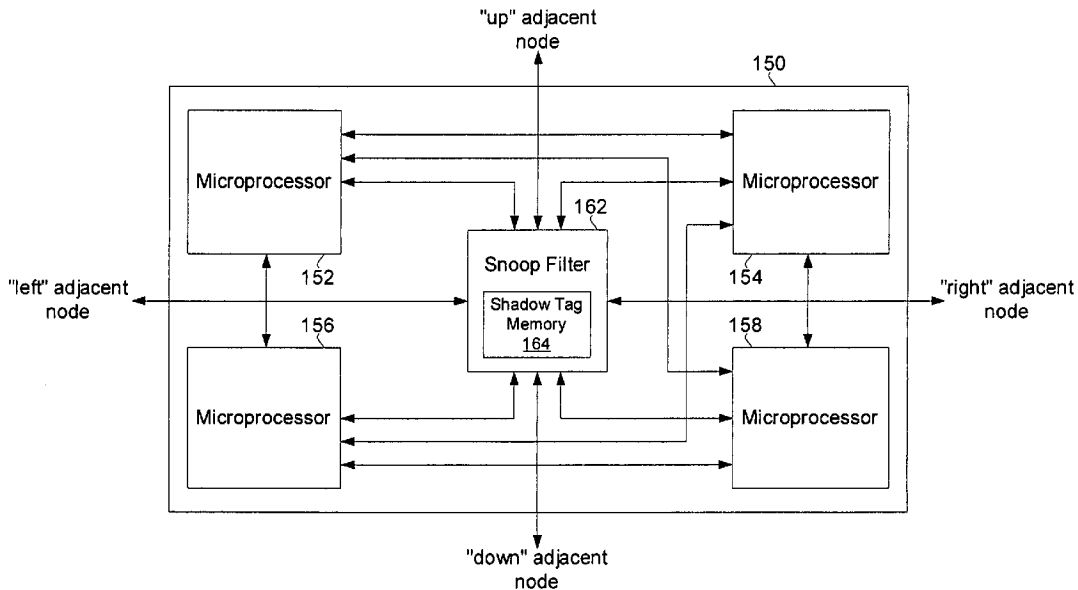*Primary Examiner*—Reginald G Bragdon
Assistant Examiner—Aracelis Ruiz
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(57) **ABSTRACT**

A multiprocessing node has a plurality of point-to-point connected microprocessors. Each of the microprocessors is also point-to-point connected to a filter. In response to a local cache miss, a microprocessor issues a broadcast for the requested data to the filter. The filter, using memory that stores a copy of the tags of data stored in the local cache memories of each of the microprocessors, relays the broadcast to those/microprocessors having copies of the requested data. If the snoop filter memory indicates that none of the microprocessors have a copy of the requested data, the snoop filter may either (i) cancel the broadcast and issue a message back to the requesting microprocessor, or (ii) relay the broadcast to a connected multiprocessing node.
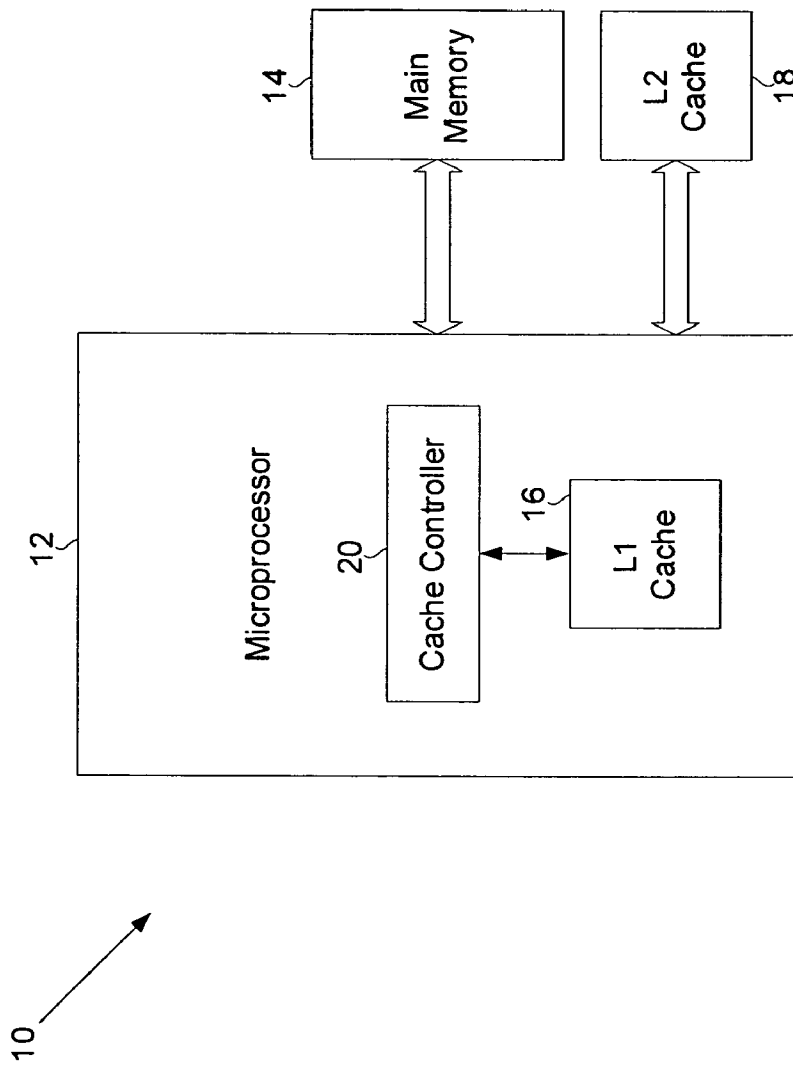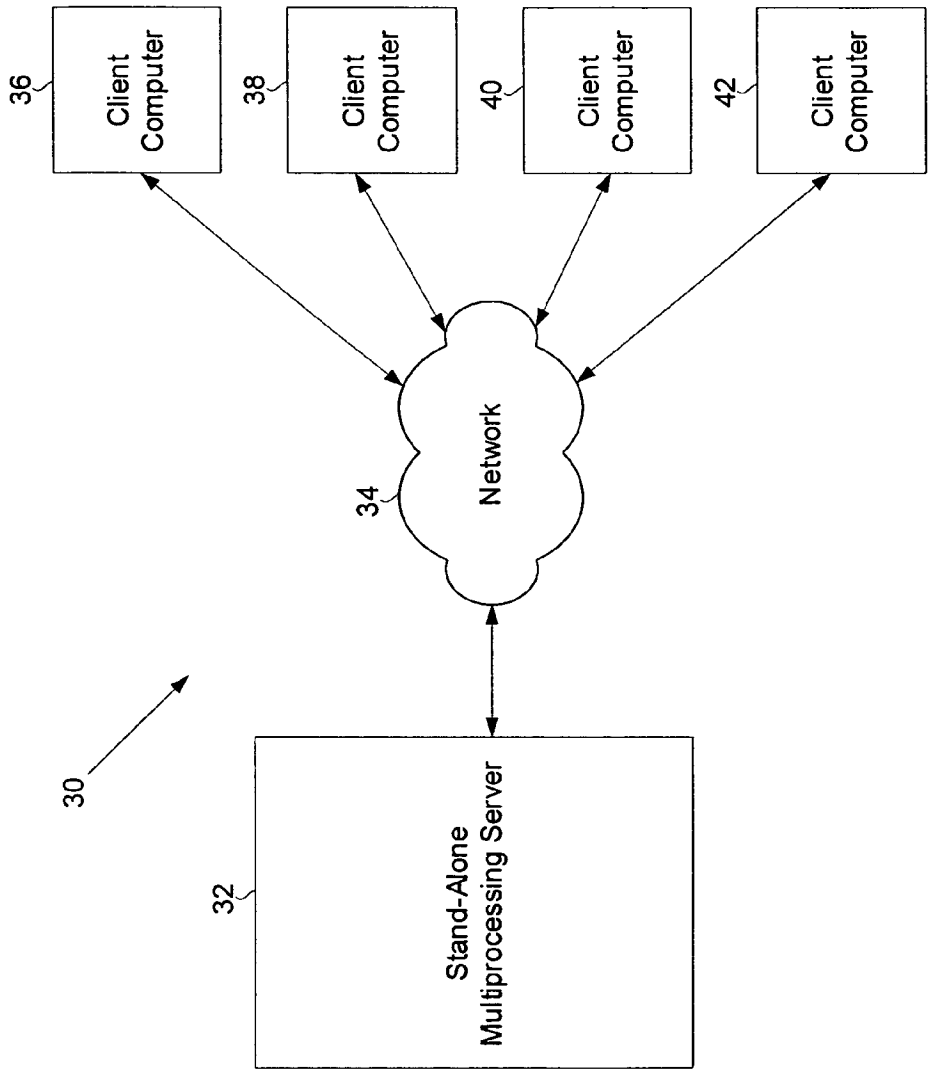
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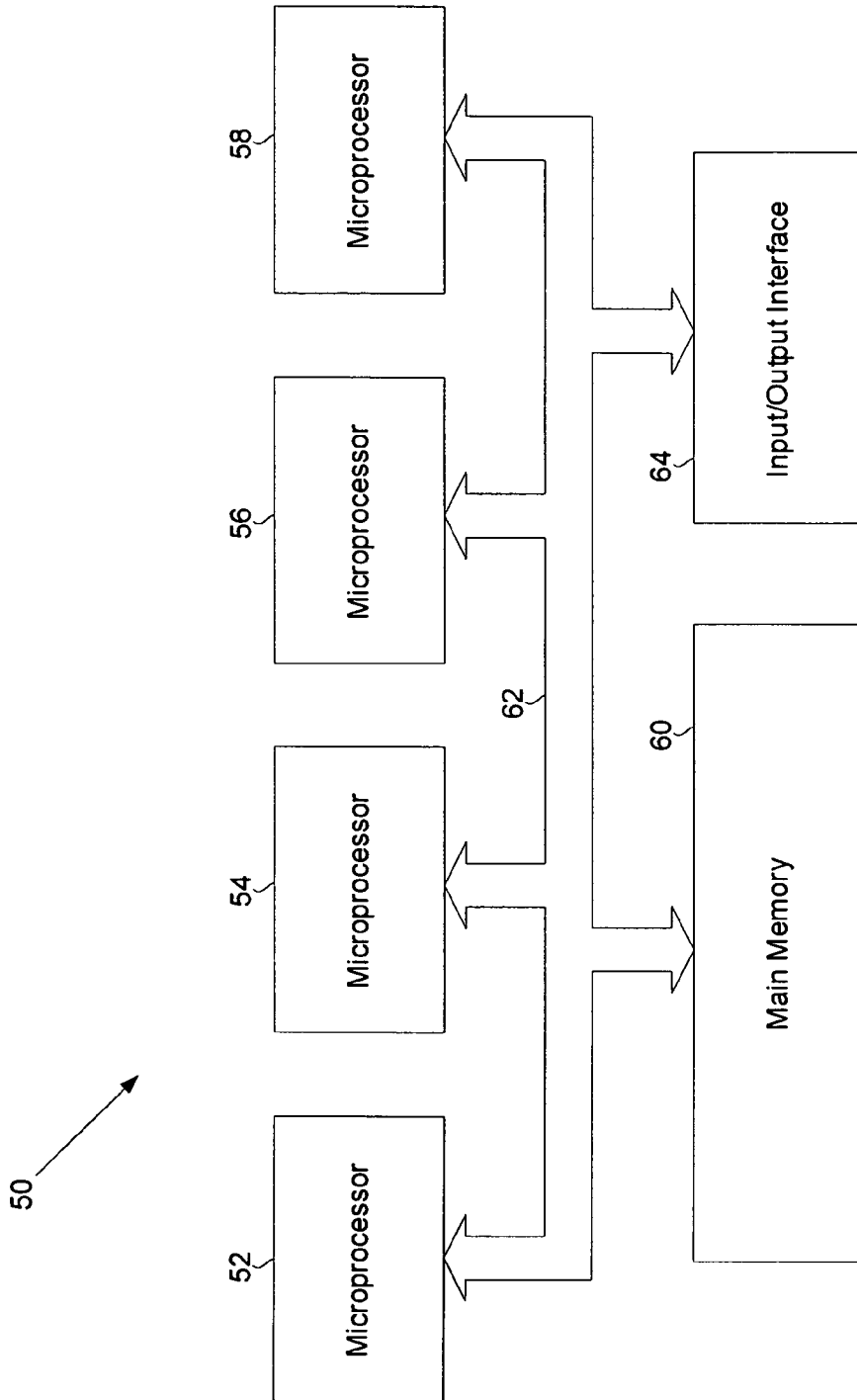
FIG. 1
(Prior Art)

FIG. 2
(Prior Art)

FIG. 3
(Prior Art)

FIG. 4

DOCKET ALARM
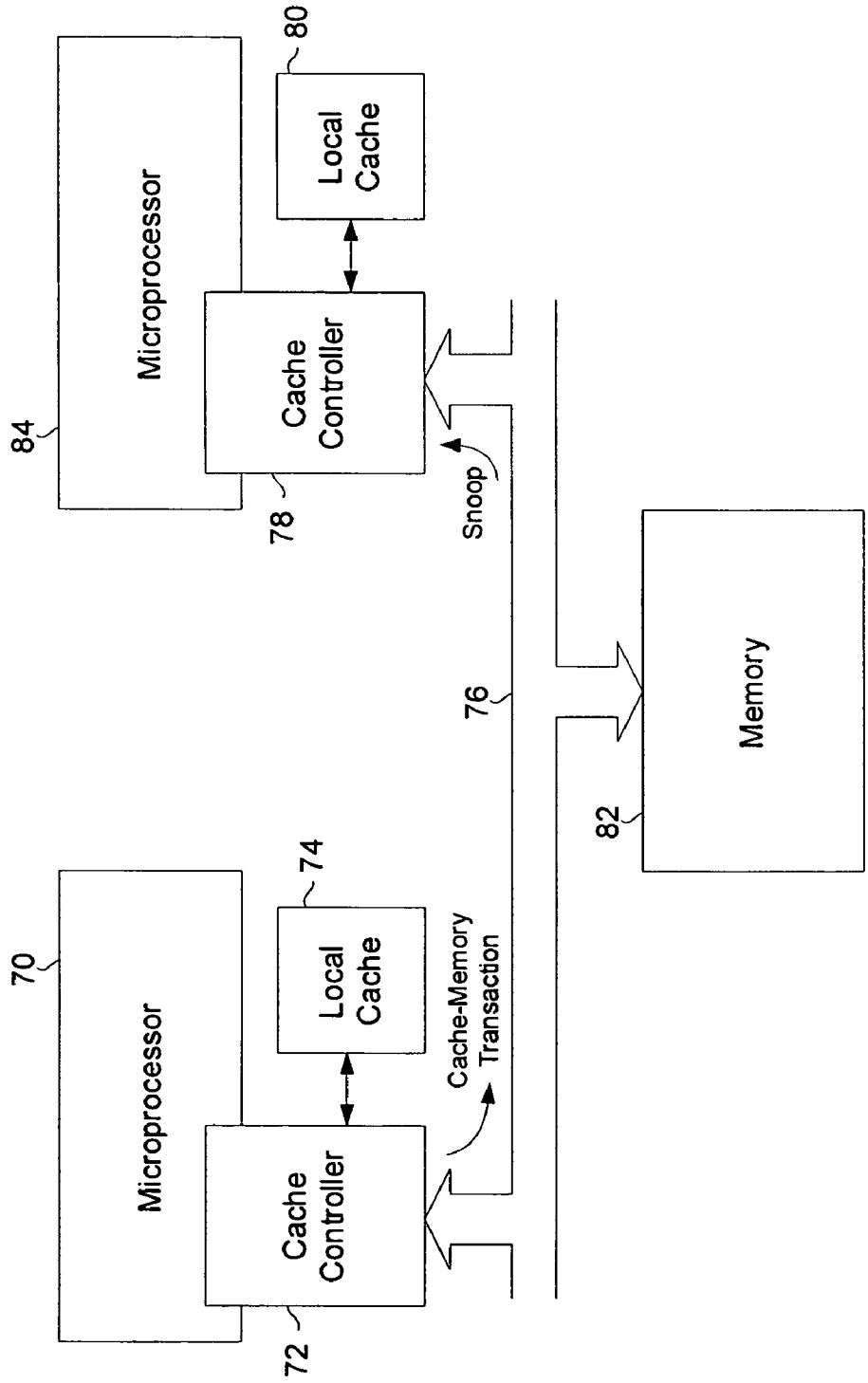
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