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(71) Applicant: **INTEL CORPORATION** [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).

(72) Inventors: **LOOI, Lily**; 15134 N.W. Mitchell Street, Portland, OR 97229 (US). **CHENG, Kai**; 15885 N.W. Trakehner Wayt, Portland, OR 97229 (US). **BRIGGS, Faye**; 3520 S Tumbleweed Court, Chandler, AZ 85248 (US). **KHARE, Manoj**; 12650 Orella Court, Saratoga, CA 95070 (US). **CEKLEOV, Michel**; 237 Sierra Vista Avenue, Mountain View, CA 94043 (US).

(74) Agents: **MALLIE, Michael, J.** et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).

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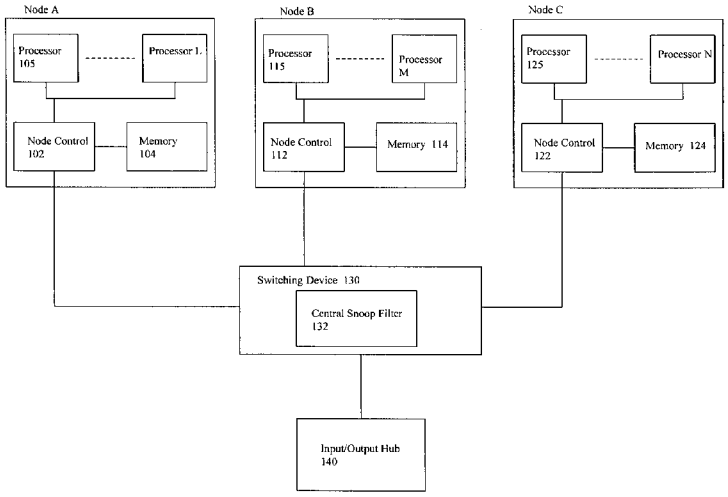
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(54) Title: METHOD AND APPARATUS FOR CENTRALIZED SNOOP FILTERING



(57) Abstract: An example embodiment of a computer system utilizing a central snoop filter includes several nodes coupled together via a switching device. Each of the nodes may include several processors and caches as well as a block of system memory. All traffic from one node to another takes place through the switching device. The switching device includes a snoop filter that tracks cache line coherency information for all caches in the computer system. The snoop filter has enough entries to track the tags and state information for all entries in all cashes in all of the system's nodes. In addition to the tag and state information, the snoop filter stores information indicating which of the nodes has a copy of each cache line. The snoop filter serves in part to keep snoop transactions from being performed at nodes that do not contain a copy of the subject cache line, thereby reducing system overhead, reducing traffic across the system interconnect busses, and reducing the amount of time required to perform snoop transactions.

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