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# United States Patent [19]

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Perlman et al.

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[54] **MECHANISM FOR EFFICIENTLY SYNCHRONIZING INFORMATION OVER A NETWORK**

[75] Inventors: **Radia J. Perlman**, Acton, Mass.; **Neal D. Castagnoli**, Morgan Hill, Calif.

[73] Assignee: **Novell, Inc.**, Orem, Utah

[21] Appl. No.: **499,029**

[22] Filed: **Jul. 6, 1995**

[51] Int. Cl.<sup>6</sup> ..... **G06F 17/30**

[52] U.S. Cl. .... **395/617; 395/610; 395/200.03; 395/200.09**

[58] Field of Search ..... **395/610, 617, 395/200.03, 200.09**

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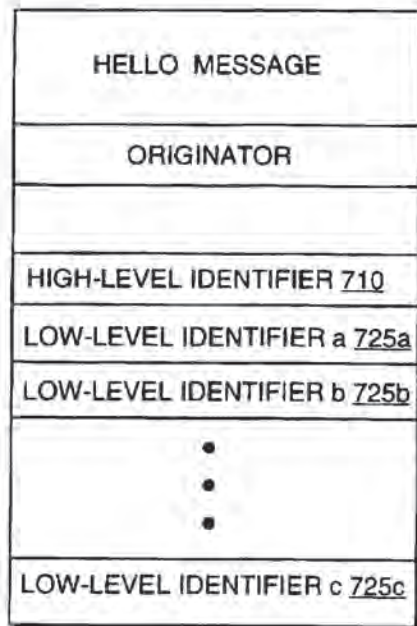
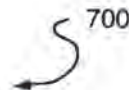
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Primary Examiner—Paul R. Lintz  
Attorney, Agent, or Firm—Cesari and McKenna

[57] **ABSTRACT**

A novel mechanism efficiently synchronizes the contents of databases stored on nodes of a computer network to ensure that those contents are consistent. The mechanism comprises a database identifier generated by a node of the computer network and distributed to other receiving nodes coupled to the network. The database identifier is uniquely representative of the contents of the distributing node's database and the receiving nodes compare this unique identifier with their own generated database identifiers to determine if the identifiers, and thus their databases, are consistent and synchronized.

**18 Claims, 6 Drawing Sheets**



MICROSOFT  
Dem. Ex. 1031  
IPR2012-00026  
IPR2013-00109

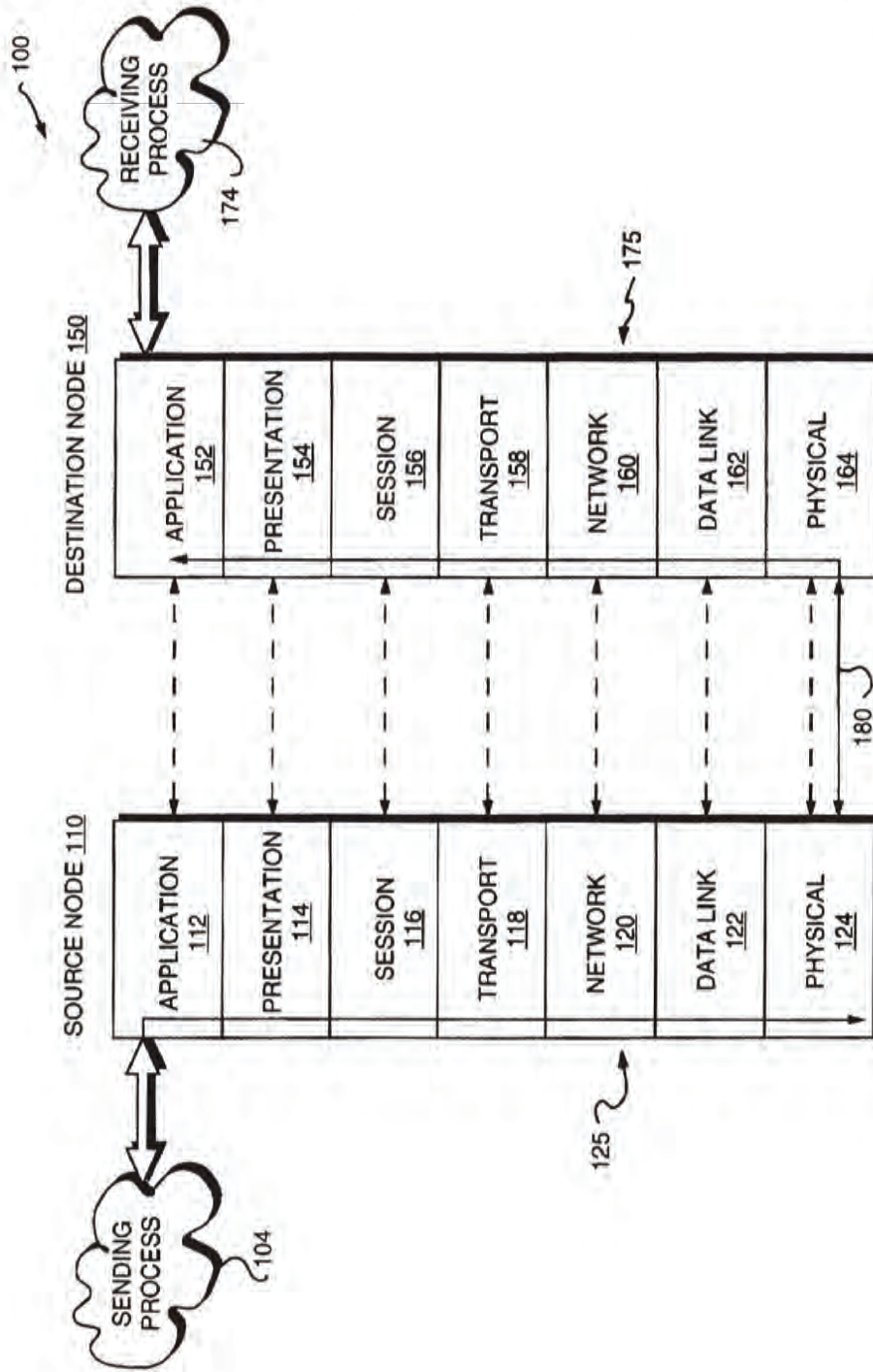


FIG. 1  
PRIOR ART

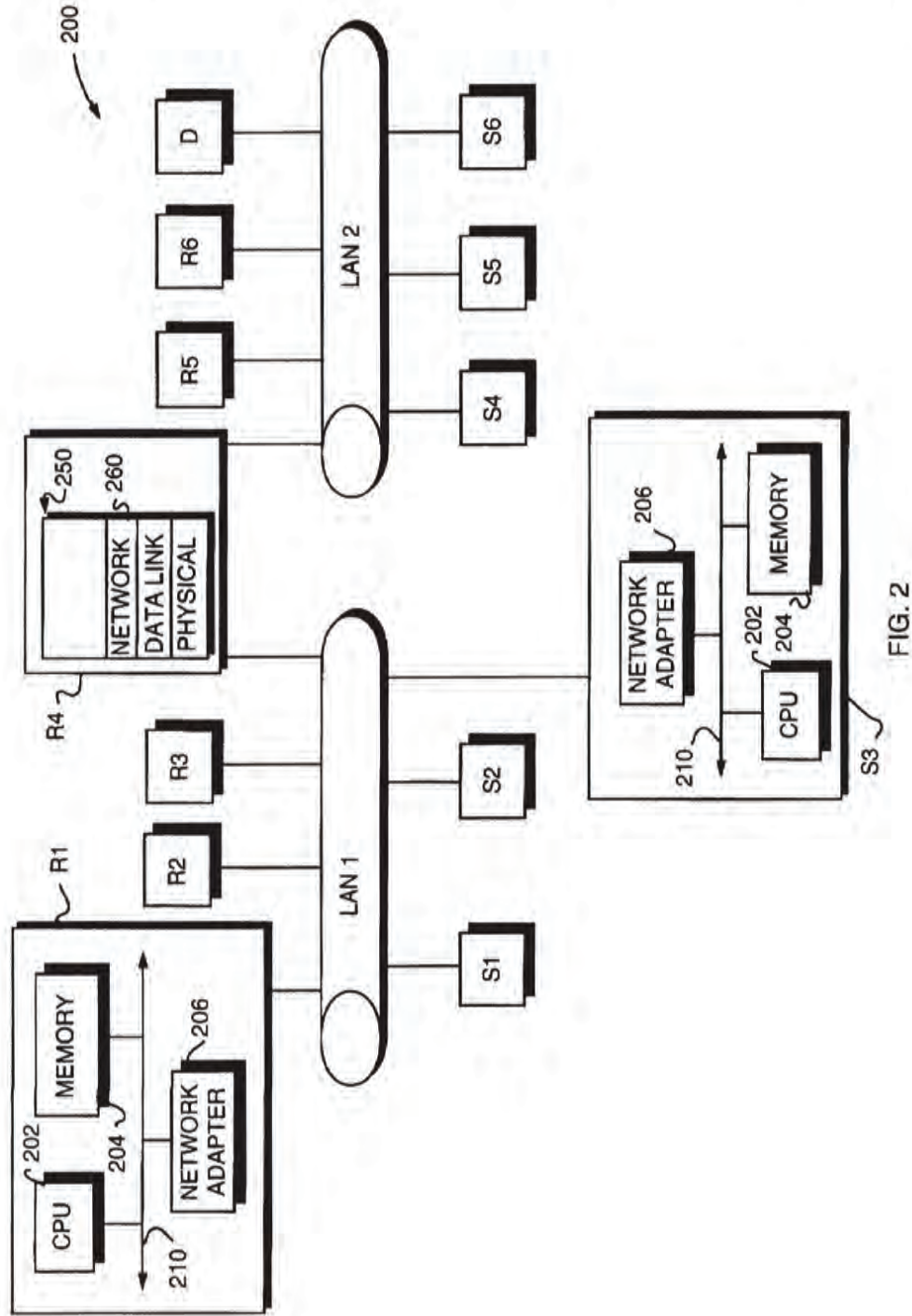


FIG. 2

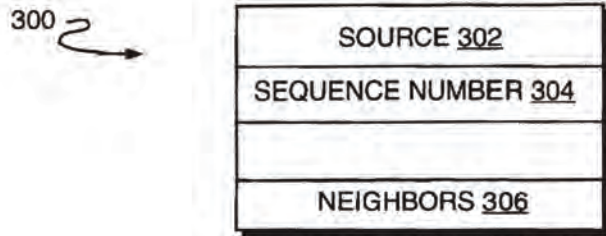


FIG. 3

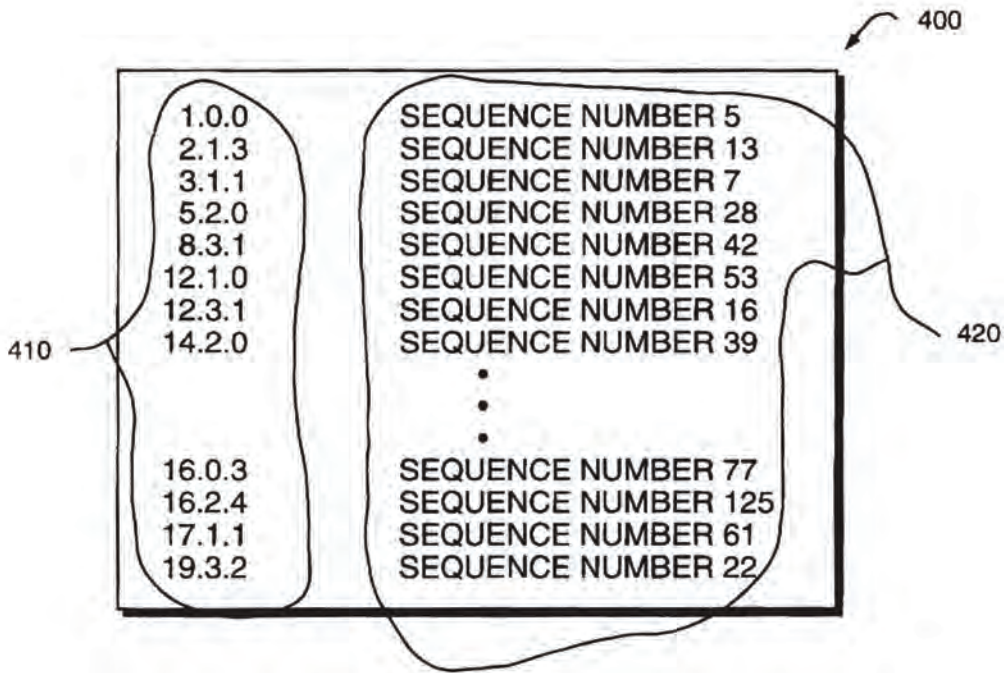


FIG. 4A



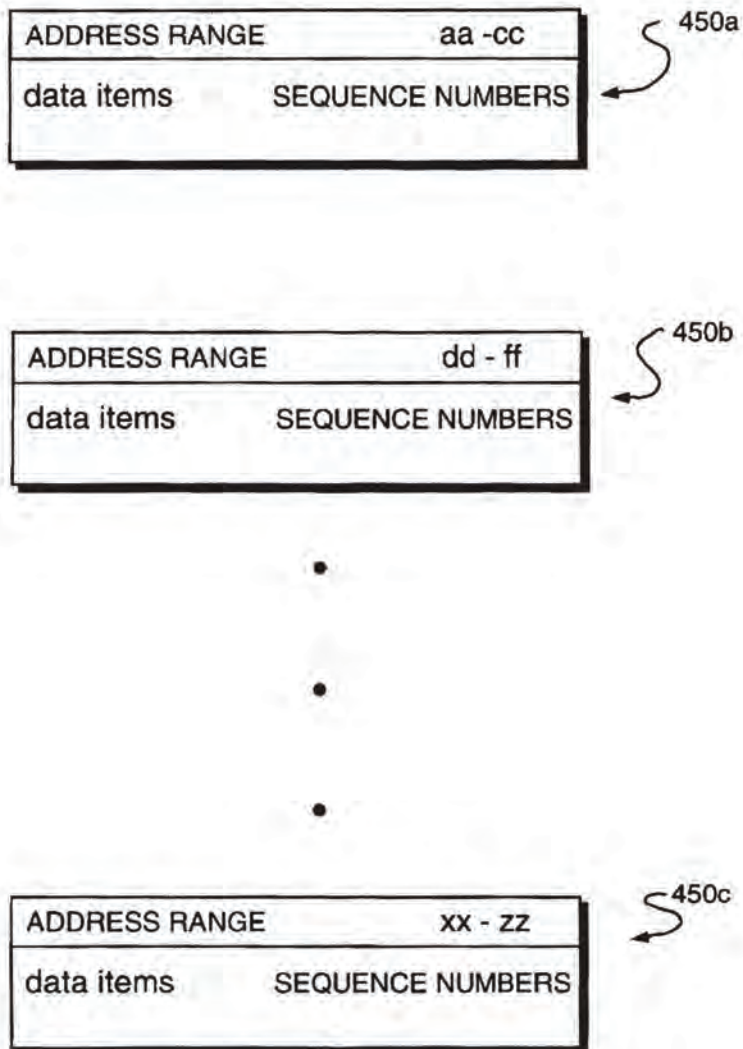


FIG. 4B

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