

# EXHIBIT 1



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**Pruet, III**

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(54) **APPARATUS AND METHOD FOR COORDINATING LOGICAL DATA REPLICATION WITH HIGHLY AVAILABLE DATA REPLICATION**

(75) Inventor: **Clarence Madison Pruet, III**, Flower Mound, TX (US)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

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(52) **U.S. Cl.** ..... **707/204; 707/202; 707/203; 707/1; 709/203; 370/389**

(58) **Field of Classification Search** ..... **707/202-204, 707/1; 370/389; 709/203**  
See application file for complete search history.

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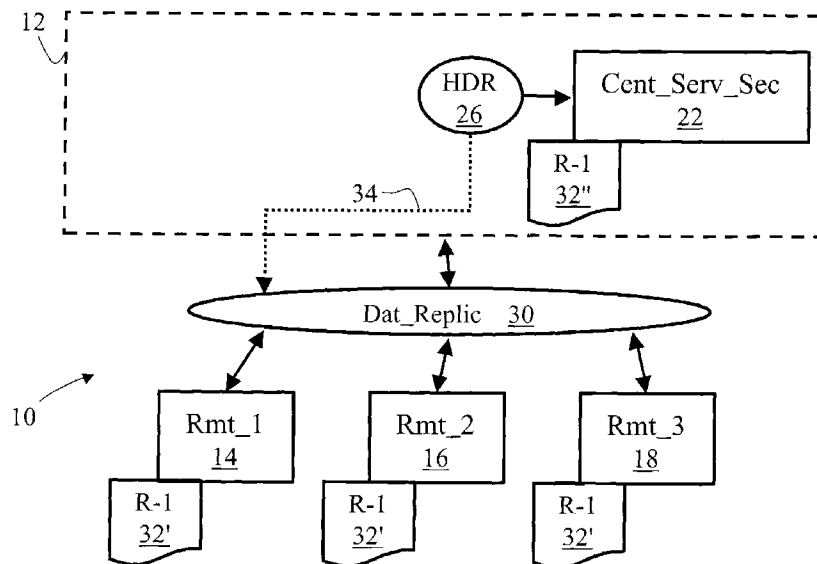
*Primary Examiner*—Sathyanarayan Pannala

(74) *Attorney, Agent, or Firm*—Fay, Sharpe, Fagan, Minnich & McKee, LLP

(57) **ABSTRACT**

In a database apparatus (10), a critical database server (12) includes a primary server (20) supporting a primary database instance and a secondary server (22) supporting a secondary database instance that mirrors the primary database instance. The secondary server (22) generates an acknowledgment signal (60) indicating that a selected critical database transaction (42) is mirrored at the secondary database instance. A plurality of other servers (14, 16, 18) each support a database. A data replicator (30) communicates with the critical database server (12) and the other servers (14, 16, 18) to replicate the selected critical database transaction (42) on at least one of said plurality of other servers (14, 16, 18) responsive to the acknowledgment signal (60).

**10 Claims, 6 Drawing Sheets**



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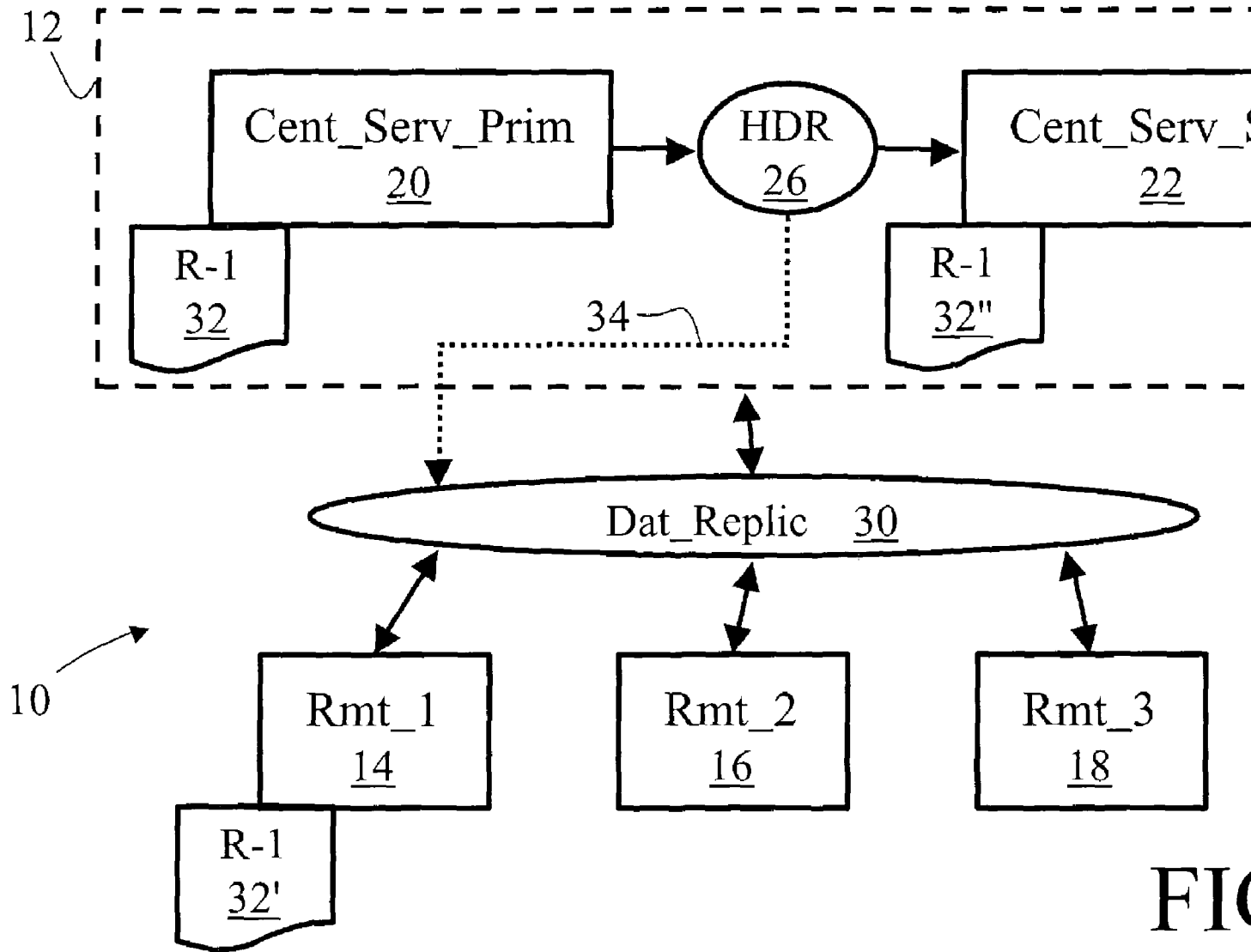
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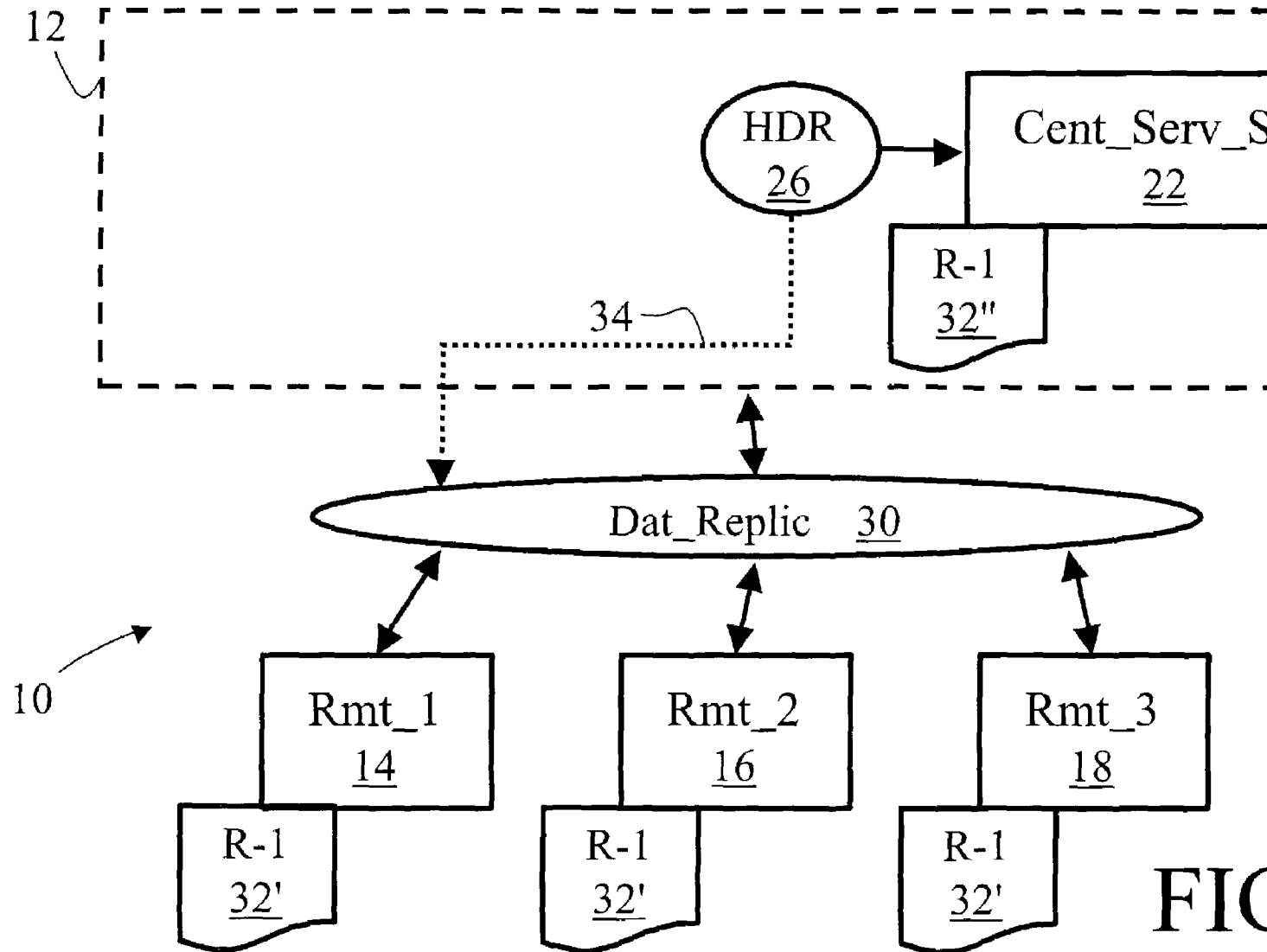
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