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AMAZON TECHNOLOGIES, INC. [US/US]; P.O. Box
8102, Reno, Nevada 89507 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SORENSEN III,
James, Christopher** [US/US]; 1200 12th Avenue South,
Suite 1200, Seattle, Washington 98144-2734 (US).(74) Agent: **MEYERTONS, HOOD, KIVLIN, KOWERT &
GOETZEL, P.C.**; KOWERT, Robert C., P.O. Box 398,
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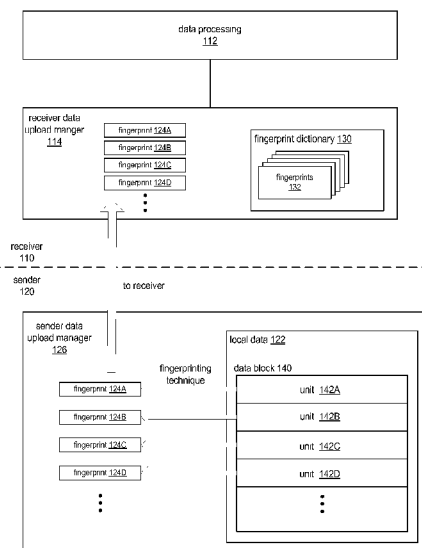


Figure 2A

(57) **Abstract:** Methods and apparatus for receiving uploaded data from a sender at a receiver. A data deduplication technique is described that may reduce the bandwidth used in uploading data from the sender to the receiver. In the technique, the receiver, rather than the sender, maintains a fingerprint dictionary for previously uploaded data. When a sender has additional data to be uploaded, the sender extracts fingerprints for units of the data and sends the fingerprints to the receiver. The receiver checks its fingerprint dictionary to determine the data units to be uploaded and notifies the sender of the identified units, which then sends the identified units of data to the receiver. The technique may, for example, be applied in virtualized data store systems to reduce bandwidth usage in uploading data.

