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**Prahlad et al.**

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(54) **DATA OBJECT STORE AND SERVER FOR A CLOUD STORAGE ENVIRONMENT**

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***G06F 16/11*** (2019.01)
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(52) **U.S. Cl.**
CPC ..... ***G06F 3/0605*** (2013.01); ***G06F 3/061*** (2013.01); ***G06F 3/0626*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC ..... G06F 16/1748; G06F 16/122; G06F 16/1844; G06F 16/1827
See application file for complete search history.

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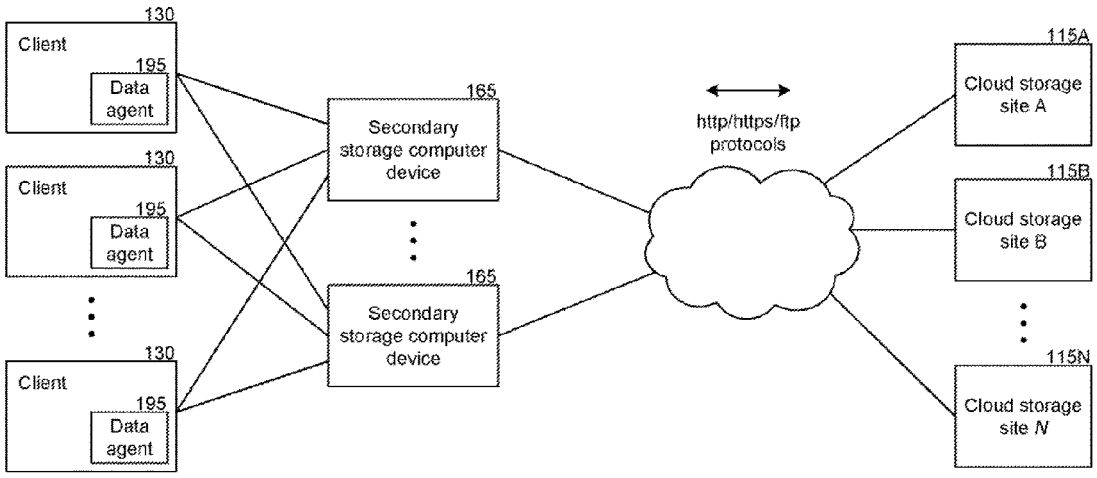
(57) **ABSTRACT**

Data storage operations, including content-indexing, containerized deduplication, and policy-driven storage, are performed within a cloud environment. The systems support a variety of clients and cloud storage sites that may connect to the system in a cloud environment that requires data transfer over wide area networks, such as the Internet, which may have appreciable latency and/or packet loss, using various network protocols, including HTTP and FTP. Methods are disclosed for content indexing data stored within a cloud environment to facilitate later searching, including collaborative searching. Methods are also disclosed for performing containerized deduplication to reduce the strain on a system namespace, effectuate cost savings, etc. Methods are disclosed for identifying suitable storage locations, including suitable cloud storage sites, for data files subject to a storage
(Continued)



policy. Further, systems and methods for providing a cloud gateway and a scalable data object store within a cloud environment are disclosed, along with other features.

**18 Claims, 33 Drawing Sheets**

**Related U.S. Application Data**

continuation of application No. 16/276,552, filed on Feb. 14, 2019, now Pat. No. 11,308,035, which is a continuation of application No. 15/258,252, filed on Sep. 7, 2016, now Pat. No. 10,248,657, which is a division of application No. 14/494,674, filed on Sep. 24, 2014, now Pat. No. 9,454,537, which is a continuation of application No. 13/615,999, filed on Sep. 14, 2012, now Pat. No. 8,849,761, which is a continuation of application No. 12/751,850, filed on Mar. 31, 2010, now Pat. No. 8,285,681.

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