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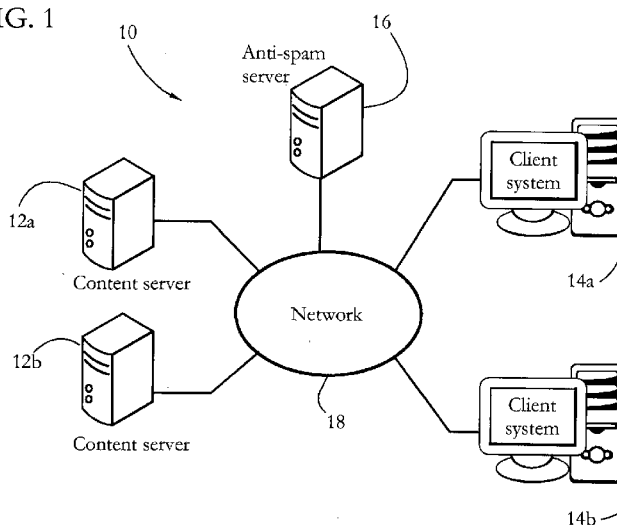
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(54) Title: SYSTEM AND METHODS FOR SPAM DETECTION USING FREQUENCY SPECTRA OF CHARACTER STRINGS

FIG. 1



(57) **Abstract:** Described spam detection techniques including string identification, pre-filtering, and frequency spectrum and timestamp comparison steps facilitate accurate, computationally-efficient detection of rapidly-changing spam arriving in short-lasting waves. In some embodiments, a computer system extracts a target character string from an electronic communication such as a blog comment, transmits it to an anti-spam server, and receives an indicator of whether the respective electronic communication is spam or non-spam from the anti-spam server. The anti-spam server determines whether the electronic communication is spam or non-spam according to features of the frequency spectrum of the target string. Some embodiments also perform an unsupervised clustering of incoming target strings into clusters, wherein all members of a cluster have similar spectra.

