Decompression-Free Inspection: DPI for Shared Dictionary Compression over HTTP (Ramot)

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A system and a method for decompression-free inspection of compressed data are provided herein.

The method includes the following stages: obtaining a dictionary file comprising a string of symbols, each associated with a respective index; obtaining at least one delta file associated with said dictionary file, wherein said delta file comprises a sequence of instructions that include at least one copy instruction pointing to an index within said dictionary and a length of a copy substring to be copied; scanning said dictionary using a pattern matching algorithm associated with a plurality of patterns and implemented as a Deterministic Finite Automaton (DFA), to yield DFA execution data; scanning said at least one delta file, using said pattern matching algorithm, wherein said DFA execution data is used to skip at least part of the scanning of the copy substrings for at least one of the copy instructions.

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