

ABSTRACT

AUTOMATIC NETWORK TOPOLOGY DETECTION AND FRAUD DETECTION

5 Given a node of a utility service distribution network, a topology of a subset of the distribution network having the given node as a root node and one or more child nodes branching from the given node is determined. The topology may be determined based on relationships or correlations of utility usage information between the given node and a plurality of potential nodes that are considered in the topology determination. Upon
10 determining the topology associated with the given node, the determined topology may be used to detect fraud and leakage that may occur in the distribution network on a regular basis or upon request. If fraud or leakage is detected in the distribution network, the system may schedule a follow-up and/or field investigation to investigate and fix the fraud or the leakage in the distribution network.

15 FIG. 1