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(54) Title: COMPLIANCE MONITORING FOR ANOMALY DETECTION

(57) Abstract

A method and system for supporting a compliance agent in compliance monitoring for anomaly detection (CMAD) involves a primary monitoring system comparing some predetermined conditions of acceptance with the actual data or event. If any variance is detected (an anomaly) by the primary monitoring system, an exception report or alert is produced, identifying the variance. In a simple environment, this identification of the variance fulfils the evidence conditions and determines an instance of non-compliance. However, in a more complex environment, it may only be an indicator of a suspect non-compliant event (SNCE). In the latter case, the compliance agent uses the results of the initial monitoring as well as important information related to the event and requiring judgemental expertise to obtain further evidence of non-compliance. Compliance gents develop propositions or believes, based on their assumption. For each proposition node in the system, the assumption based truth maintenance system maintains a list of minimum sets of assumptions (Boolean cues), which are relevant to the SNCE type. At the macro level, the construct uses the trivalent belief-disbelief-unknown. However, this is refined by applying a measure of importance to individual pieces of empirical evidence.

