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(57) Abstract :

The present disclosure relates generally to field of network security. More specifically the present invention relates to a system for assessing network security risks. The system (100) includes a node information database (102), an attack information database (104), a risk analyzer (106), a user interface (108), a real-time monitoring device (110), a recommendation engine (112), an update device (114), and a security level device (116). The risk analyzer (106) is embedded with machine learning and artificial intelligence algorithm to analyze network traffic and to generate risk parameters for each node based on the node fragility information and the attack information. The user interface (108) is configured to present the risk parameters to users. Further the present invention relates to a method for assessing network security risks. Advantageously, the present invention combines the analysis of node fragility with potential attack scenarios to provide a more comprehensive assessment of network security risks

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