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An Architecture for New Generation of Distributed Intrusion Detection System Based on Preventive Detection

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Abstract : The design and implementation of intrusion detection systems (IDS) remain an important area of research in the security of information systems. Despite the importance and reputation of the current intrusion detection systems, their efficiency and effectiveness remain limited as they should include active defense approach to allow anticipating and predicting intrusions before their occurrence. Consequently, they must be readapted. For this purpose we suggest a new generation of distributed intrusion detection system based on preventive detection approach and using intelligent and mobile agents. Our architecture benefits from mobile agent features and addresses some of the issues with centralized and hierarchical models. Also, it presents advantages in terms of increasing scalability and flexibility.

Keywords : Intrusion Detection System (IDS), preventive detection, mobile agents, distributed architecture
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