DESIGNING AN INFRASTRUCTURE FOR MOBILE AGENT-BASED INTRUSION DETECTION SYSTEM USING DISTRIBUTED SENSORS

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Abstract

This paper presents a distributed intrusion detection system (IDS), based on mobile agents, that detects intrusion from outside the network segment as well as from inside. Remote sniffers are controlled by the IDS via mobile agents, which gather intrusion detection data and send them back to the main station for analysis. The system shows a superior performance compared to central sniffing IDS techniques, and saves network resources compared to other distributed IDSs that activate too many sniffers causing bottlenecks in the network. The proposed model comprises three major components: The Network Intrusion Detection Component, the Mobile Agent Platform, and distributed sensors residing on every device in the network segment.