

# An Adaptive Honeypot Configuration, Deployment and Maintenance Strategy

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**Abstract**— Since honeypots first appeared as an advanced network security concept they suffer from poor deployment and maintenance strategies. State-of-the-Art deployment is a manual process in which the honeypot needs to be configured and maintained by a network administrator. In this paper we present a method for a dynamic honeypot configuration, deployment and maintenance strategy based on machine learning techniques. Our method features an identification mechanism for machines and devices in a network. These entities are analyzed and clustered. Based on the clusters, honeypots are intelligently deployed in the network. The proposed method needs no configuration and maintenance and is therefore a major advantage for the honeypot technology in modern network security.

**Keyword**— Network Security, Information Security, Adaptive honeypots, Dynamic honeypots, Intelligent honeypots, Context-aware honeypots



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