



## A Conceptual Model for a Holistic Predictive Attack Ability Metric for Secure Service Oriented Architecture Software

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### ABSTRACT

Software based systems are ubiquitous in modern day operations. There has been an increase in software based system attacks; leading to the need to equip the project managers, software designers and software developers with a better predictive attackability model at the architectural design stage. Attackability is a concept proposed recently in research literature to measure the extent that a software system or service could be the target of a successful attack. A literature survey of existing technical models was carried out to identify gaps in them. Also, a literature survey on, human traits that lead to human beings and the software system they man being subject to social engineering attacks was undertaken. Then a conceptual model has been proposed to extend the existing technical model and incorporate a social attackability model to produce a holistic predictive attackability model.

**Keywords:** *Attackability, Internal attributes, model, external attributes, metric*

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