

## Pengukuran daya baterai smartphone android pada kondisi distributed denial of service (DDoS) = The measurement of battery power level on android smartphone during the condition of distributed denial of service (DDoS)

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### Abstrak

Penelitian pada bidang Network Intrusion Detection System (NIDS), terutama pada Android, terus berkembang sesuai dengan perkembangan jenis, versi, dan teknologi yang diusung. Android merupakan mayoritas perangkat yang digunakan pada smartphones sekarang ini di seluruh dunia. Oleh karena alasan tersebut, sistem keamanan pada Android seperti intrusion detection system perlu digagas dan dikembangkan agar serangan, terutama energy-oriented attacks, walaupun energi bukan menjadi target utama serangannya, dapat teratasi. Simulasi energy aware intrusion detection system dilakukan dengan merancang energy-oriented attack berupa pingflood DDoS dengan menggunakan syntax aplikasi hping3 pada terminal sistem operasi Linux Ubuntu 12.04.

Hasil pengukuran membuktikan penurunan level baterai dan daya yang terkuras selama dilakukan pingflood, serta kenaikan temperatur. Ketiga hal tersebut menjadi penyebab ketidakstabilan sistem pada perangkat smartphone, terutama dengan sistem operasi Android. Rekomendasi penanggulangan intrusi DDoS, berupa pingflood, dengan implementasi firewall dan IPS dalam jaringan juga dijelaskan pada skripsi ini.

.....Research in the field of Network Intrusion Detection System (NIDS), especially on Android, continues to grow in accordance with the development of type, version, and the technology remembering Android is an operating system that is used in the majority of today's smartphones in worldwide. Because of these reasons, a security system on Android such as intrusion detection system need to be conceived and developed in order to protect, especially energy-oriented attacks despite the use of energy is not the main target of the attack can be resolved. Simulation of energy-aware intrusion detection system was being held by designing energy-oriented attack form, pingflood DDoS, using the hping3 application syntax on Ubuntu Linux 12.04 terminal.

The result proves there is a decreased of battery and power level that are depleted during pingflood, as well as the rise in temperature. These three things cause the instability in the smartphone system, especially on the Android operating system. Recommendations proposed within the implementation of firewalls and IPS in the network are also explained in this thesis to prevent DDoS intrusion in form of pingflood.