Rekomendasi keamanan terhadap kerentanan dalam sistem operasi Open Source : studi kasus kerentanan Stagefright dalam sistem operasi Android menggunakan CISSP dan situational crime prevention = Security recommendation against vulnerability in open source operating system : case study of Stagefright Vulnerability in Android operating system using CISSP and situational crime prevention

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Abstrak

Sistem operasi open source Android menawarkan kemudahan dalam modifikasi yang membuatnya banyak digunakan dalam perangkat mobile. Namun, hal tersebut juga membuat sistem operasi ini rentan akan serangan keamanan. Pada tahun 2015 ditemukan kerentanan Stagefright yang dilihat sebagai kerentanan paling berbahaya sepanjang sejarah Android, karena berpotensi mengambil alih kontrol penuh atas suatu perangkat. Menggunakan routine activity theory, dipaparkan bahwa kerentanan Stagefright memiliki resiko untuk dieksploitasi, yang kemudian digunakan untuk menciptakan rekomendasi gabungan aspek teknis dan non teknis atau pendekatan faktor manusia untuk mewujudkan sistem operasi yang aman. Rekomendasi ini menggabungkan badan pengetahuan Certified Information Systems Security Professional CISSP yang ditujukan untuk keamanan sistem informasi, dan teknik-teknik situational crime prevention.

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As an open source operating system, Android offers much freedom in terms of modification, which supports its usage popularity for mobile devices. On the other hand, the nature of this operating system makes it vulnerable against security attacks. Discovered in 2015, Stagefright bug is widely claimed as the worst Android vulnerability ever discovered, because of its potential ability to take a full control of Android devices. Using routine activity theory, it is seen that Stagefright vulnerability could pose a risk that can be exploited, subsequently makes a way for a recommendation consisting technical and non technical human factor aspects for a safer operating system. This recommendation combined Certified Information Systems Security Professionals lsquo common body of knowledge which is used for information system security, and the techniques of situational crime prevention.