

# Evaluasi maturity level keamanan dan rekomendasi perbaikan keamanan Internet of Things (IOT) PT XYZ berdasarkan kerangka kerja IoT security maturity model = Evaluation of security maturity level and recommendations for improving PT XYZ's Internet of Things (IoT) security based on the IoT security maturity model framework

Alvin Yudistriansyah, author

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## Abstrak

Operator telekomunikasi kini telah mulai mengubah arah bisnis yang tidak lagi bergantung pada pendapatan dari layanan legacy seperti SMS dan voice, mereka mulai beralih ke layanan digital. Dengan kemampuan operator dalam hal konektivitas, mereka menaruh harapan pada layanan digital seperti Internet of Things (IoT). Banyak akademisi dan konsultan memprediksi bahwa IoT dapat meningkatkan pendapatan bagi operator telekomunikasi. Namun di balik potensi besar IoT, ada masalah penting dalam IoT yaitu masalah keamanan yang bisa menurunkan kepercayaan terhadap adopsi IoT. Melihat fakta-fakta ini, evaluasi tingkat kematangan pada sistem keamanan operator telekomunikasi perlu dilakukan untuk meminimalkan risiko dan ancaman keamanan. Penelitian ini bertujuan untuk mengevaluasi tingkat kematangan keamanan dan memberikan rekomendasi peningkatan keamanan di satu operator telekomunikasi di Indonesia. Metode penilaian yang digunakan penelitian ini menggunakan kerangka kerja IoT Security Maturity Model yang dikeluarkan oleh IIC. Hasil dari assessment maturity level yang dilakukan menunjukkan adanya kesenjangan pada maturity level untuk supply chain, incident dan event handling and recovery, identity access management, patch management, dan monitoring.

.....Telco operators have now begun to shift the direction of the business, which no longer relies on revenues from legacy services such as SMS and voice, they now shift to digital services. With its capabilities in terms of connectivity, the operator put hope to digital service such as the Internet of Things (IoT). Many academics and consultants predict IoT could boost revenue streams for telco operators. But behind the huge potential of IoT, there is a crucial issue in IoT which is security issues that could bring down confidence in the adoption of IoT. Looking at these facts, the evaluation of the maturity level on the telco operators security system needs to be done to minimize risks and security threats. This study aims to evaluate the security maturity level and give recommendation security improvement of one telco operator in Indonesia. The method for assessment which this study uses is the IoT Security Maturity Model framework issued by IIC. The results of the assessment maturity level indicate a gap in the maturity level for supply chain, incident, and event handling and recovery, identity access management, patch management, and monitoring.