Abstract

Mobile technology and Internet is becoming an integral part of our daily life. Widespread usage of smart phones and its greater in-built functionality have provided portability to perform transaction like shopping, ticket booking and banking transactions on the fly. In mobile computing, the characteristic like context awareness allows to provide proactively adapted services to user according to the context. Especially in combination with mobile devices, these mechanisms carries high value and are used to increase usability tremendously. Equally being an Android operating system as open source, it is prone to attack. In this view there is need to define new attack taxonomy and its modeling. This paper presents a novel taxonomy for Context Aware Proactive System (CAPS) in smart phone. This paper also presents activity modeling of proposed taxonomy to get an actual view of happening of attack like Cross Service attack, spyware and Battery Exhaustion attack. At the end this paper also discusses mitigation techniques to address few of the mentioned attacks.

References

- Poonam N. Railkar, Parikshit N. Mahalle, "Proposed secure context aware profile
translation" IJITS, Vol. 1; No. 2: ISSN: 2277-9825
- Ketaki Shah, Anuja Raundal, Gouri Bhandari, Santwana Rathi, Poonam Railkar
,Parikshit Mahalle "Proposed profile translation In context aware proactive system"; IJCSE ISSN : 0976-5166 Vol. 3 No. 6 Dec 2012-Jan 2013
- Wuest, Bjorn; Droegehorn, Olaf; David, Klaus, "Architecture for profile translation"; IST summit 2005, 12.
- Daniel Gallego Vico; Wolfgang Woerndl; Roland Bader "A Study on Proactive Delivery of Restaurant recommendations for Android Smartphones"; In ACM Recsys Workshop on Personalization in Mobile Applications, Chicago, USA, October 2011
- Tae Oh ; Stackpole, B. ; Cummins, E. ; Gonzalez, C. ; Ramachandran, R. ; Shinyoung Lim "Best Security Practices for Android, BlackBerry, and iOS"; First IEEE Workshop on Enabling Technologies for Smartphone and Internet of Things (ETSIoT), 2012
- Gaeil An ; Daeehee Seo ; Jonghyun Kim ; KIyoung Kim ; Dongil Seo "Context-based Remote Security Control for Mobile Communication Device"; IEEE, International Symposium on Communications and Information Technologies (ISCIT), 2010
- Muslukhov, I. ; Boshmaf, Y. ; Kuo, C. ; Lester, J. ; Beznosov, K. "Understanding Users' Requirements for Data Protection in Smartphones"; IEEE 28th International Conference on Data Engineering Workshops (ICDEW), 2012

**Index Terms**

Computer Science  

Security

**Keywords**

Threat  

Taxonomy  

Security Context  

Context-Awareness  

Mobile  

Proactive system translation  

Smartphone  

Android  

User profile