Progress report

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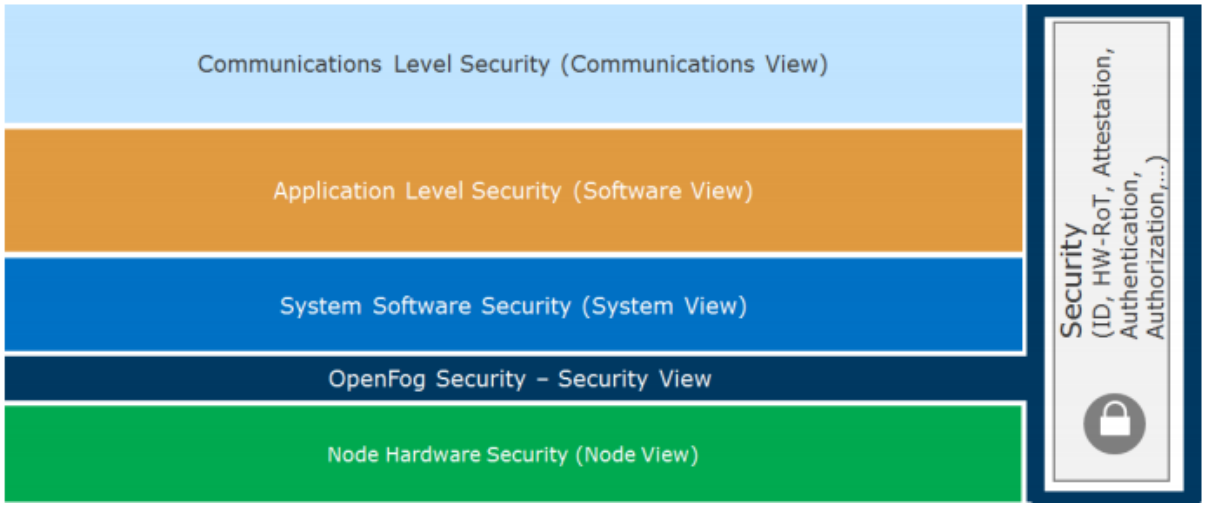
Outline

Progress report

References

- Privacy-Preserving Mobile Crowdsensing for Located-Based Application[1]
- use BBS+[2] to accomplish identity anonymity
- location privacy

- OpenFog Reference Architecture for Fog Computing[3]


Communications Level Security (Communications View)
Application Level Security (Software View)
System Software Security (System View)
OpenFog Security – Security View
Node Hardware Security (Node View)
Security
(ID, HW-RoT, Attestation, Authentication, Authorization,...)

Threat Categories / Intents / Attack Venues	Confidentiality Violation	Integrity Violation	Authentication Violation	Availability Violation	Privacy Violation
	Leaking information through overt/covert channels	Modifying data/code without proper authorization	Masquerading one entity as another entity	Rendering resources unreachable /unavailable	Leaking sensitive information of an entity (incl. identity)
Insider Attacks	Data Leaks	Data Alteration	Identity/Password / Key Leaks	Equipment Sabotage	Data/Identity Leaks
Hardware Attacks	Hardware Trojans, Side Channel Attacks	Hardware Trojans	Hardware Trojans	Radio Jamming, Bandwidth Exhaustion	Hardware Trojans, Side Channel Attacks
Software Attacks	Malware	Malware	Malware	DoS/DDoS, Resource Depletion	Malware, Social Network Analyses
Network Based Attacks	Eavesdropping	Message / Transaction Replay	Spoofing, Man-in-Middle Attacks	DoS/DDoS, Subnet Flooding	Traffic Pattern Analyses

References

[1] J. Ni, K. Zhang, X. Lin, Q. Xia, and X. S. Shen, "Privacy-preserving mobile crowdsensing for located-based applications," in *2017 IEEE International Conference on Communications (ICC)*, May 2017, pp. 1–6.

[2] M. H. Au, W. Susilo, Y. Mu, and S. S. M. Chow, "Constant-size dynamic k-times anonymous authentication," *IEEE Systems Journal*, vol. 7, no. 2, pp. 249–261, June 2013.

[3] O. Consortium. (2017) Openfog reference architecture for fog computing. [Online]. Available: https://www.openfogconsortium.org/wp-content/uploads/OpenFog_Reference_Architecture_2_09_17-FINAL.pdf

Thanks for Your Attentions