

專題演講

Speaker : 李奇育教授 (交通大學資訊工程學系)

Talk Title : New Security Threats Caused by IMS-based Services in 4G LTE Networks

Abstract :

The mobile network is the only wireless infrastructure that offers ubiquitous data and voice services. It is a large-scale, global network infrastructure on a par with the Internet. However, our preliminary study shows that the mobile network may face unprecedented security threats due to the recent evolution of mobile network technologies. Since 2015, several US carriers (e.g., Verizon, AT&T, and T-Mobile) have started to roll out IMS-based (IP Multimedia Subsystem) services, which include VoLTE (Voice over LTE), IMS-based SMS (Short Messaging Service), etc. VoLTE and the IMS-based SMS are introduced to substitute the traditional circuit-switched voice and SMS services, respectively, by relying on the IMS system over packet-switched network. In this talk, I will present the security threats caused by these two IMS-based services, their root causes, and our proposed remedies.

Autobiography :

Chi-Yu Li is currently an Assistant Professor with the Department of Computer Science, National Chiao Tung University (NCTU). He received the PhD degree in computer science from University of California, Los Angeles (UCLA) in 2015. Before joining UCLA, he received his Master's and Bachelor's degrees from the Department of Computer Science, NCTU. His research interests include wireless networking, mobile networks and systems, and network security. He has published several papers in top-tier academic conferences of both networking and security areas, such as ACM MOBICOM, IEEE INFOCOM, and ACM CCS. He received the Award of MTK Young Chair Professor in 2016.