## Practical Packet Analysis: Exploring the Cybercriminal behind the LINE Voice Calls

Da-Yu Kao\*, Wen-Ying Wu

Department of Information Management, Central Police University, Taoyuan City 333, Taiwan, ROC \*Correspondence: camel@mail.cpu.edu.tw

Abstract—Cybercrimes are emerging trends on the Internet. The criminals behind contemporary cyber threats to society are well organized, and seek to take advantage of those using Internet services. Free instant communications, like LINE or WhatsApp, bring close to our family and friends around the globe. People in Taiwan use LINE application more frequently than others. This study uses Wireshark to explore the cybercriminal behind the LINE voice calls. Some algorithms are identified to the criminal's IP address by way of LINE voice calls. It will be helpful for Law Enforcement Agencies (LEAs) to prosecute cybercriminals, and bring them to justice.

## Keyword—Packet Analysis, VOIP, LINE Application, Cybercrime Investigation



Dayu Kao is an Associate Professor at Department of Information Management, College of Police Science and Technology, Central Police University, Taiwan. He is responsible for various recruitment efforts and training programs for Taiwan civil servants, police officers or ICT technicians. He has an extensive background in law enforcement and a strong interest in information security, ICT governance, technology-based investigation, cyber forensics, human resource development, and public sector globalization. He was a detective and forensic police officer at Taiwan's Criminal Investigation Bureau (under the National Police Administration). With a Master degree in Information Management and a PhD degree in Crime Prevention and Correction, he had led several investigations in cooperation with police agencies from other countries for the past 20 years. He can be reached at camel@mail.cpu.edu.tw.



Wen-Ying Wu is a student at Department of Information Management, College of Police Science and Technology, Central Police University, Taiwan.