

# A Design of Security Framework for Data Privacy in e-Health System using Web Service

Non Thiranant\*, Mangal Sain\*, HoonJae Lee\*\*

\*Department of Ubiquitous IT, Graduate School of Dongseo University,  
Sasang-Gu, Busan 617-716, Korea

\*\*Division of Computer and Engineering Dongseo University  
Sasang-Gu, Busan 617-716, Korea

thiranant.non@gmail.com , mangalsain1@gmail.com, hjee@dongseo.ac.kr

**Abstract**— E-Health is a common term used for electronic health, where the services and systems provided include electronic health records, prescriptions, consumer health information, healthcare information systems, and so on. In this period of time, several patients have started to use e-health, considering the convenience of services delivered and cost reduction. The popularity has abruptly been increasing due to a wide range of services. From the system administrator's perspectives, not only protecting privacy of patients is considered a difficult task, but also building trust of patients in e-health. In this paper, a design of security framework for data privacy in e-Health system based on web service architecture is proposed. It is interesting to note that the approach proposed in this paper is not limited to e-Health system.

**Keyword**— Privacy, E-health, Data Privacy, Web service, Data encryption



논 티라난 (Non Thiranant)

He received the B.S. degree in Information technology from Multimedia University, Malaysia in 2013. He is currently a master candidate in cryptography and network security at Dongseo University, Korea. His research interests include network security, cloud computing, e-Healthcare, and authentication protocol.