Projects & Publications

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| PROJECTS | |  | PROJECTS  Cloud systems and Big Data  Providing QoS in multi-tenant cloud environments through virtual network embedding  Enabling Distributed Optimization (Algorithms and Practice)  Scalable, high-performance networking stack, services, and applications  Internet/System Security  Intel SGX [[SGX reading list](http://ina.kaist.ac.kr/~dongsuh/SGXReadingList.html)]  OpenSGX: We recently released the [[source code](https://github.com/sslab-gatech/opensgx)] of an Intel SGX emulator!  High-performance intrusion detection using many-core systems  Automatic protocol and behavior analysis of Android Apps using binary analysis [[tech report](http://ina.kaist.ac.kr/~dongsuh/paper/Kim2016-thesis.pdf)]  Internet Content Delivery  VDN: Enabling Software-defined, Near-Real Time Control for Content Delivery Networks  Understanding the Internet video Quality of Experience (QoE) and QoE engineering  Enhancing HTTP Adaptive Streaming with Network-level Predictions  Reliable Real-time Communication on Content-aware Networks |
| PUBLICATIONS | |  |
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| PROJECTS | |  | PUBLICATIONS  KI-Mon ARM: A Hardware-assisted Event-triggered Monitoring Platform for Mutable Kernel Object  Hojoon Lee, Hyungon Moon, Ingoo Heo, Daehee Jang, Jinsoo Jang, Kihwan Kim, Yunheung Paek, Brent Byunghoon Kang  IEEE TDSC 2017 (Awarded Best Paper) [[PDF]](http://cysec.kaist.ac.kr/publications/KIMONARM.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/KIMONARM.bib)  Invi-server: Reducing the attack surfaces by making protected server invisible on networks  Jaehyun Park, Jiseong Noh, Myungchul Kim, **Brent Byunghoon Kang**  Computers & Security 2017 [[PDF]](http://cysec.kaist.ac.kr/publications/Invi-server_Reducing_the_attack.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/Invi-server_Reducing_the_attack.bib)  PrivateZone: Providing a Private Execution Environment using ARM TrustZone  Jinsoo Jang, Changho Choi, Jaehyuk Lee, Nohyun Kwak, Seongman Lee, Yeseul Choi, Brent Byunghoon Kang  IEEE TDSC 2016 [[PDF]](http://cysec.kaist.ac.kr/publications/PrivateZone_Providing_a_Private_Execution_Environment_using_ARM_TrustZone.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/privatezone.bib)  On-demand Bootstrapping Mechanism for Isolated Cryptographic Operations on Commodity Accelerators  Yonggon Kim, Ohmin Kwon, Jinsoo Jang, Seongwook Jin, Hyeongboo Baek, Brent Byunghoon Kang, Hyunsoo Yoon  Computers & Security 2016 [[PDF]](http://cysec.kaist.ac.kr/publications/On-demand_Bootstrapping_Mechanism_for_Isolated_Cryptographic_Operations_on_Commodity_Accelerators.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/ondemand.bib)  OpenSGX: An Open Platform for SGX Research  Prerit Jain† Soham Desai† Seongmin Kim⋆ Ming-Wei Shih†  JaeHyuk Lee⋆Changho Choi⋆ Young Shin⋆ Taesoo Kim† Brent Byunghoon Kang⋆ Dongsu Han⋆  NDSS Symposium 2016 (15.4%)  [[PDF]](http://cysec.kaist.ac.kr/publications/jain-opensgx.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/opensgx.bib)  Vulnerabilities of network OS and mitigation with state-based permission system  J. Noh, S. Lee, J. Park, S. Shin, and B. Kang  Security and Communication Networks 2015 [[PDF]](NULL) [[BIBTEX]](NULL)  Detecting and Preventing Kernel Rootkit Attacks with Bus Snooping  H. Moon, H. Lee, I. Heo, K. Kim, Y. Paek and B. Kang  IEEE Transactions on Dependable and Secure Computing [[PDF]](http://cysec.kaist.ac.kr/publications/vigilare_journel_TDSC.pdf) [[BIBTEX]](http://cysec.kaist.ac.kr/publications/vigilare_journel_TDSC.bib) |
| PUBLICATIONS | |  |
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