### Accepted Manuscript

Accepted date: 2-1-2018

Title: Domain isolated kernel: a lightweight sandbox for untrusted kernel extensions

Author: Valentin J.M. Manès, Daehee Jang, Chanho Ryu, Brent Byunghoon Kang

PII:	S0167-4048(18)30028-2
DOI:	https://doi.org/10.1016/j.cose.2018.01.009
Reference:	COSE 1271
To appear in:	Computers & Security
Received date:	20-7-2017
Revised date:	4-12-2017

Please cite this article as: Valentin J.M. Manès, Daehee Jang, Chanho Ryu, Brent Byunghoon Kang, Domain isolated kernel: a lightweight sandbox for untrusted kernel extensions, *Computers & Security* (2018), https://doi.org/10.1016/j.cose.2018.01.009.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

### ACCEPTED MANUSCRIPT

# Domain Isolated Kernel: A lightweight sandbox for untrusted kernel extensions

Valentin J.M. Manès<sup>a</sup>, Daehee Jang<sup>b</sup>, Chanho Ryu<sup>a</sup>, Brent Byunghoon Kang<sup>b,\*</sup> <sup>a</sup>Cyber Security Research Center (CSRC), 291 Daehak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea <sup>b</sup>Korea Advanced Institute of Science and Technology (KAIST), 291 Daehak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea

\*Corresponding author

#### Valentin J.M. Manès:

Valentin Manès is currently a researcher at the Cyber Security Research Center (CSRC). He received his Master's degree from Télécom ParisTech with a specialization in network security and information systems security. During a one year exchange at KAIST, he developed an interest for HW-based trusted execution environment.

#### **Daehee Jang:**

Daehee Jang received the B.S. degree in Computer Engineering from Hanyang University, South Korea, in 2012.

He also received the M.S. degree in Information Security from Korea Advanced Institute of Science and Technology (KAIST), South Korea, in 2014.

He is currently working toward the Ph.D. degree at the Division of Computer Science, Korea Advanced Institute of Science and Technology (KAIST).

His research interest includes software vulnerability, operating system, Intel SGX.

#### **Chanho Ryu:**

Dr. Ryu is currently a senior researcher and research manager at the Cyber Security Research Center (CSRC). He has also worked in the president's office and has been a senior researcher at the Korea Atomic Energy Research Institute and at the Korea Computerization Agency. Dr. Ryu received his Ph.D. in Computer Science from the Chungnam National University.

#### **Brent Byunghoon Kang:**

Dr. Kang is currently an associate professor at the Graduate School of Information Security at

Download English Version:

## https://daneshyari.com/en/article/6883971

Download Persian Version:

https://daneshyari.com/article/6883971

Daneshyari.com