



Proce ings of the 23rd USENIX

## conference

. . . . . . . . . . . . . . . .

proceedings

## **23rd USENIX Security Symposium**

San Diego, CA August 20–22, 2014

Sponsored by



## **Thanks to Our USENIX Security '14 Sponsors**

# **Gold Sponsors** Google



**Silver Sponsor** Microsoft<sup>®</sup> Research

**Bronze Sponsors RYPTOGRAPHY** facebook RESEARCH a division of Rambus



#### **Media Sponsors and Industry Partners**

ACM Queue ADMIN magazine **CRC** Press Distributed Management Task Force (DMTF)

HPCwire InfoSec News Linux Pro Magazine LXer No Starch Press

O'Reilly Media UserFriendly.org Virus Bulletin

© 2014 by The USENIX Association All Rights Reserved

This volume is published as a collective work. Rights to individual papers remain with the author or the author's employer. Permission is granted for the noncommercial reproduction of the complete work for educational or research purposes. Permission is granted to print, primarily for one person's exclusive use, a single copy of these Proceedings. USENIX acknowledges all trademarks herein.

ISBN 978-1-931971-15-7

### Thanks to Our USENIX and LISA SIG Supporters

Google

Akamai

**USENIX** Patrons

Microsoft Research NetApp VMware

#### **USENIX Benefactors**

Facebook Hewlett-Packard *Linux Pro Magazine* Puppet Labs

#### **USENIX and LISA SIG Partners**

Cambridge Computer Google

#### **USENIX** Partner

EMC