



How to Wear Your Password

Markus Jakobsson

Qualcomm Technologies, Inc.



SECURITY (FALSE POSITIVES)



USABILITY (FALSE NEGATIVES)



USABILITY (EFFORT)



black hat[®]
USA 2014

PHYSICAL+LOGICAL TETHERING

© 2014 Qualcomm Technologies, Inc.



black hat[®]
USA 2014



© 2014 Qualcomm Technologies, Inc.



black hat[®]
USA 2014



WANT
IDENTITY



black hat[®]
USA 2014





DOES NOT *REPLACE*
EXISTING TECHNOLOGIES, BUT
***BUILDS* ON THEM.**



black hat[®]
USA 2014

USER INTENT



PROXIMITY
IMPLICIT
EXPLICIT



SOME EXAMPLE USE CASES



SOME ATTACKS



Thank you

All data and information contained in or disclosed by this document is confidential and proprietary information of Qualcomm Technologies, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that this material and the information contained therein is to be held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others without the express written permission of Qualcomm Technologies, Inc.

©2014 Qualcomm Technologies, Inc. All Rights Reserved. Qualcomm, Snapdragon, Adreno and Hexagon are trademarks of Qualcomm, Incorporated, registered in the United States and other countries. FastCV, Krait and IZat are trademarks of Qualcomm Incorporated. All Qualcomm Incorporated trademarks are used with permission. Other products and brand names may be trademarks or registered trademarks of their respective owners.