



**Smart Card
Alliance**

NFC Mobile Security Approaches and Business Applications Workshop

A Smart Card Alliance Educational Institute Workshop

Randy Vanderhoof
Executive Director, Smart Card Alliance

2014 NFC Solutions Summit
Renaissance Austin Hotel, Austin, TX — June 2, 2014

About the Smart Card Alliance

The Smart Card Alliance is a not-for-profit, multi-industry association working to stimulate the understanding, adoption, use and widespread application of smart card technology.

Through specific projects such as education programs, market research, advocacy, industry relations and open forums, the Alliance keeps its members connected to industry leaders and innovative thought. The Alliance is the single industry voice for smart cards, leading industry discussion on the impact and value of smart cards in the U.S. and Latin America.

For more information please visit

<http://www.smartcardalliance.org>.



About the Mobile & NFC Council

- **Council Goal**

Raise awareness and accelerate the adoption of payments, loyalty, marketing, promotion/coupons /offers, peer-to-peer, identity, access control and transit applications using NFC

- **Membership**

Over 170 individuals from more than 70 organizations

- **Recent Projects**

BLE 101: A Technology Primer and Example Use Cases

Mobile/NFC Security Fundamentals Webinar Series

Mobile and NFC Standards Landscape

Coming Soon: HCE 101 Primer

- **Council Resources**

<http://www.smartcardalliance.org/pages/activities-councils-mobile-and-nfc-council>



Workshop Topics – Morning Sessions

- **The Anatomy of a Mobile Device.** Foundation for understanding the capabilities of mobile devices, including the architecture and functions in a mobile device and fundamentals of the security architecture for applications.
- **Fundamentals of Near Field Communication (NFC).** Overview of NFC, including the relevant standards and features and functionality of NFC tags and NFC-enabled mobile devices and software.
- **Trusted Execution Environment 101.** Overview of the Trusted Execution Environment (TEE) specifications and TEE implementation for securing mobile applications
- **Secure Elements 101.** In-depth session on the types of secure elements (SE) currently being used in mobile devices, their interaction with other applications in the mobile device and their use with different applications
- **Host Card Emulation 101.** In-depth session on Host Card Emulation (HCE), discussing security considerations for HCE implementation, and describing anticipated uses of HCE for mobile applications



Workshop Topics – Afternoon Sessions

- **NFC Mobile Payments.** Detailed discussion of how NFC mobile payments work, how they are provisioned to consumers' mobile devices and how they are accepted through the merchant infrastructure
- **NFC Identity and Access Control.** Detailed discussion of how NFC mobile devices can be used in identity and access control applications
- **NFC Tags, Security and Applications.** Overview of the different NFC Forum tag types, the applications that use each tag type, provisioning for tags, and security considerations when implementing tags
- **RF Technologies and Mobile Applications.** Review of the RF technologies that are available in mobile devices (BLE, WiFi, NFC, GPS) and overview of the features of the technologies and the applications that may use them.
- **NFC Implementation Considerations Panel.** Discussion of the applications and security approaches being implemented with NFC and perspectives on best practices

Workshop Agenda

8:00 – 8:30	Registration and Coffee	
8:30 – 8:45	Introductions	Randy Vanderhoof, Smart Card Alliance
8:45 – 9:15	Anatomy of a Mobile Device	Tom Zalewski, CorFire
9:15 – 9:45	Fundamentals of NFC	Jeff Fonseca, NXP Semiconductors
9:45 – 10:15	Trusted Execution Environment 101	Pedro Martinez, Gemalto / GlobalPlatform
10:15 – 10:30	Break	
10:30 – 11:15	Secure Elements 101	Sree Swaminathan, First Data
11:15 – 12:00	Host Card Emulation 101	Xiaodong Guo, UL
12:00 – 1:00	Lunch	
1:00 – 1:45	NFC Mobile Payments	Stu Cox, Giesecke & Devrient
1:45 – 2:30	NFC Identity and Access Control	Peter Cattaneo, Intercede
2:30 – 3:00	NFC Tags, Security and Applications	Roger Hornstra, Identiv
3:00 – 3:30	Break	
3:30 – 4:00	RF Technologies and Mobile Applications	Mike English, Heartland Payment Systems
4:00 – 5:00	NFC Implementation Considerations Panel	Moderator: Maarten Bron, UL Panelists: Tony Sabetti, Isis; Sree Swaminathan, First Data; Tom Zalewski, CorFire





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