The Workshop on Web Applications and Secure Hardware

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Workshop Overview

Web browsers are becoming the platform of choice for applications that need to work across a wide range of different devices, including mobile phones, tablets, PCs, TVs and in-car systems. However, for web applications which require a higher level of assurance, such as online banking, mobile payment, and media distribution (DRM), there are significant security and privacy challenges. A potential solution to some of these problems can be found in the use of secure hardware – such as TPMs, ARM TrustZone, virtualisation and secure elements – but these are rarely accessible to web applications or used by web browsers.

The First Workshop on Web Applications and Secure Hardware (WASH'13) focused on how secure hardware could be used to enhance web applications and web browsers to provide functionality such as credential storage, attestation and secure execution. This included challenges in compatibility (supporting the same security features despite different user hardware) as well as multi-device scenarios where a device with hardware mechanisms can help provide assurance for systems without. Also of interest were proposals to enhance existing security mechanisms and protocols, security models where the browser is not trusted by the web application, and enhancements to the browser itself.

Committees

We are grateful to the following people for making this workshop possible.

Organising Committee

– John Lyle (University of Oxford)
– Marcel Winandy (Ruhr-University Bochum)
– Shamal Faily (University of Oxford)

Programme Committee

- Andrea Atzeni (Politecnico di Torino)
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- Michael LeMay (Intel, USA)
- Nick Allott (Nquiringminds)
- Ronald Tögl (TU Graz)
- Shamal Faily (University of Oxford)
- Virginie Galindo (Gemalto)

Additional Reviewers

- Andrew Paverd (University of Oxford)
- Atanas Filyanov (Ruhr-University Bochum)
- Justin King-Lacroix (University of Oxford)

Local Organisation

- Michael Huth, Imperial College London

Review Process

Every submitted paper received at least three reviews from qualified academic reviewers. The acceptance rate was 43%.