



W3C Web Payments Workshop GSMA Position Paper Final Version [14/02/2014]

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W3C Workshop on Web Payments: GSMA Position Paper

Introduction

The GSMA represents the interests of mobile operators worldwide and connects them with companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. Collaboratively with our members the GSMA runs a number of technical programs and interest groups; among these are the mCommerce Programme, the mIdentity Programme, and the W3C Interest Group.

The mCommerce programme covers a range of areas in an effort to accelerating the global deployment of open and interoperable mobile commerce services whilst offering security through embedded secure elements such as the SIM. In addition to working on standards and implementations of Near Field Communications (NFC) the programme also addresses the business opportunities for mobile payments within the Retail and Transport ecosystems. The mIdentity programme focuses on developing existing operator solutions around secure elements and fraud prevention to innovate around authentication methods to enable consumers, businesses and governments to interact in a private, trusted and secure environment and enable access to services. Finally the W3C Interest is in charge of monitoring activity in the web landscape and identifying these programmes of opportunities for operators within the web.

In this paper we will describe the work happening in these programmes and the reasons for our interest in the movements and developments in payments for the web.

The Mobile Landscape: Payments within GSMA Programmes

The GSMA Mobile Commerce team leads much of the work in innovations in mobile payments and planned deployments with identified partners. Here we will detail the Mobile Commerce's areas of focus, the associated work with the mIdentity Programme and opportunities within the web as identified by the W3C Interest Group.

NFC

NFC is a contactless technology being integrated in mobile devices around the world (global sales of NFC handsets in 2012 rose 300% to 140 million units - Berg Insight). For users the benefits include being able to pay for physical items by placing the mobile device on a touch point at the Point of Sale (POS). For business, the expansion of an easy and immediate payment solution is an obvious gain. The GSMA promotes NFC technologies that utilise UICC applets to protect customer data by allowing access to only authorised applications [1]; these solutions can be used in conjunction with a mobile wallet [2].

Retail

The consumer journey is now much longer than visiting a brick-and-mortar store. Retailers are combining their online and in-store offerings with news and offers delivered through both the web and mobile. The GSMA is working on a combination of technical solutions which will enable advances in retail payments; this includes wallets, loyalty schemes, NFC and hardware. Security is an obvious concern with retail payments, the GSMA works on embedded elements and cryptographic applets among other solutions to improve security. Advances in identity will also be of service here; by offering users greater peace-of-mind through their online retail experience. It is noted that the GSMA supports organisations by working with other stakeholders, including governments and banks.

Transport

Commuters have started to use their mobile devices to enrich their travel from finding directions to gaming and entertainment. The next step is to introduce payment and ticketing via the mobile device. The GSMA with it's members are working on utilising NFC for ticketing and mobile wallets for payments working with personalised solutions for transport users [3]. The GSMA are invested in protecting users' security through embedded elements, cryptography and data storage. The GSMA also supports working through these solutions with all stakeholders, including regulators, service providers and the Smart Ticketing Alliance.

Commerce and Finance

Buying products or services online comes with associated risks which can lead to identity theft and fraud. Personal security could benefit from cryptography based on secure elements, identity mechanisms and mobile wallets [4]. GSMA is working on investigating these areas to support mobile commerce and finance.

Mobile Wallets

Payments within mobile has evolved to a state of many providers offering many solutions. To reduce this complexity, consumers need a straightforward and consistent approach to organising digital vouchers, loyalty programmes, payment cards, tickets and other items. A mobile wallet is one way of solving these problems [5]; allowing a user to pay and manage payments while their information is managed in a secure way. The GSMA is working on standardisation for mobile wallet solutions. These 'wallets' will reside on a device and utilise a secure element that holds data required for payment, access and other services while protecting against fraud. Trusted Service Managers (TSM) will be responsible for managing users data on the element [6].

Final Comments

In this paper we have detailed the key project areas where the GSMA is working with it's members to deliver open and interoperable mobile payments solutions globally. We have also shown that through every stage the GSMA and it's members are aware of the risks associated with security, and the benefits offered through improved identity methods. The GSMA understands there is great interest from many parties in the developments within payments on the web; and we too wish to investigate the further opportunities and risks associated with payments on the web. We are particularly interested web payment solutions for mobile - how the mobile device can play a central role for identification/security, and the need for web payments to be interoperable with existing and planned solutions as detailed above.

The GSMA looks with anticipation to the W3C Workshop on Web Payments to piece together some of the further research areas within mobile and web payments.

References

- [1. NFC UICC Requirements Specification, Version 4.0, 15 August 2013](#)
- [2. NFC Core Wallet Requirements, Version 2.0, 15 August 2013](#)
- [3. White Paper : Mobile NFC in Transport](#)
- [4. White Paper:Mobile Commerce in Retail - Loyalty and Couponing January 2014](#)
- [5. Mobile and Online Commerce Opportunities provided by the SIM December 2013](#)
- [6. The Role of the Trusted Service Manager in Mobile Commerce December 2013](#)