Mobile Identity

Finnish Mobile ID: A Lesson in Interoperability

An Executive Summary

In Finland, an advanced LTE market with mobile penetration and internet penetration both over 90%, the three leading mobile operators – TeliaSonera, DNA and Elisa – developed an interoperable mobile identity service called Mobile ID. Known as "Mobiilivarmenne" in Finnish, the service was launched in 2011 and offered a shared, common platform for the authentication of users to third party service providers, irrespective of the network operator to which they subscribe. This unique interoperable structure has been held as a model by operators in other markets looking to launch similar services.

A number of key lessons enabled the Finnish operators to refine the service to the successful model that exists today:

- Mobile ID is a third generation service in Finland. Early service attempts failed due to lack of capable handsets and SIM cards, and later due to a complex registration process (only the police department could issue strong identification). With this third attempt, the mobile operators believe they have the process right with better coordination among themselves and with other ecosystem players, clarified legislation, new mobile service standards, a greater number of interested service providers, better pricing (earlier variants of the service charged consumers and were too expensive) and a more efficient registration process (end users can now register in-store in approximately 8 minutes or use their Bank ID to register online in approximately 3 minutes).

- Today's Mobile ID service is the result of a Finnish consortium made up of government and public services authorities, mobile operators and the Finnish Federation for Communications and Teleinformatics (FiCom), which came together to develop the terms for such a new authentication and authorisation service in order to better serve the diverse needs of businesses and provide secure authentication for eGovernment services. TeliaSonera, DNA and Elisa formed a unique "circle of trust" – an agreement under which the operators accept digital identities created by each other and, by allowing signature "roaming" across their networks, make use of the single agreements that each individual operator has with third party service providers. The mobile PKI infrastructure and productised APIs used in the Mobile ID are uniform across the three operators, enabling them to offer an identical experience for both service provider clients and end users.

- In 2009, Finnish legislation clarified the legal validity of electronic signature to be equivalent to a "wet signature," meaning that the mobile signature element of Mobile ID can be used in a wide range of everyday transactions, including secure banking, insurance, legal contract signing and permissions, online commerce and many more. Since then, PKI-capable SIMs have been issued across Finland and the law has evolved to make it possible for private sector businesses to act as issuers of strong identification tokens and services, as well as allow new eID credentials to be created based on other existing strong eID credentials. More than 200 service providers have partnered with mobile operators to use Mobile ID.

- The service is viewed by its users as far more convenient and user friendly than existing Bank ID or Citizen ID card authentication solutions. Utilising the secure environment of the SIM to store the signing PKI application and mobile SMS channel for credential transmission, the user is able to receive digital signing requests and to produce the signed response by entering their unique user PIN code. The service works on 99% of mobile phones (both feature and smartphones) and can be used anywhere with a mobile signal. It also uses spam prevention codes and event (transaction) IDs to protect users from being disturbed by unwanted spam requests.

- Mobile ID is currently offered as a free service to individuals, while third party service providers are charged for the service on a per-transaction basis, with prices stratified based on the frequency, volume and value of the transactions being made . Mobile operators compete based on service provider partnerships and pricing packages.

Despite active uptake among users and businesses in its first few years since launch, Mobile ID continues to experience some challenges in reaching scale, mostly as a result of the "chicken and egg" problem – subscribers resist taking up mobile identity services until they are integrated by a broad range of third party service providers for everyday use, and service providers are unwilling to integrate Mobile ID until a large percentage of operators' customers have adopted the service. In particular, banks have been slow to adopt the new operator-driven Mobile ID solution and allow Bank ID to be used for registration due in part to competitive concerns and a lack of region-wide solutions covering their other markets.

The three mobile operators believe that enabling pre-registration through Bank ID is a key milestone for facilitating scale and uptake among users. They also believe that scale will be driven by the availability of more public services as well as more daily, high-value services, such as internet banking and payment approvals, as opposed to those used less frequently such as insurance and government services. Studies are currently being conducted on the potential for Mobile ID to be used by medical professionals for signing prescriptions and securely sending essential health records during specialist referrals. In addition, the multi-channel capabilities of Mobile ID (e.g. voice and video) are expected to aid in enticing service providers through the opportunity to build a wide array of value-adding services in the future.

Read about the case study in full and find out more about the Mobile Identity Programme on our website: www.gsma.com/mobileidentity/

1 There are currently approximately 3 million Bank ID users in Finland. Bank ID uses a combination of a PIN code and a One Time Password from a paper list, which must be carried by the user at all times. It can be used for services beyond banking such as e-commerce and government services.
2 National Citizen ID Cards require the individual to be present at the point of sale and tend to be primarily used as a travel document. As of the end of 2012 there were only 400,000 eID certificates in circulation.
3 There is debate as to whether consumers should be charged, with some believing that once 25% penetration is reached mobile operators can start charging consumers via billing or a subscription-based payment scheme.