Mobile OTP Solution

Secure E-Banking through mobile authentication

Mobile Communications

Simage
TECHNOLOGIES

Both business and personal banking clients are increasingly depending on e-banking services in today's fast-paced world. Financial institutions worldwide are offering online banking for customer convenience because of this reason, but the service has its own integral risks, especially regarding the security of transactions. Users are often heavily concerned about the safety of their personal details and banking information been subjected to fraud. As a result, financial institutions are more and more concerned about protecting their reputation and image while offering their customers with the security and convenience they demand.

» Mobile OTP Solution

With over 4 billion mobile phone subscriptions worldwide, the mobile phone is becoming popular as a multifunctional device. While the users change their mobile phones regularly, they still use the same SIM card. Financial institutions can now rest easy with the Mobile OTP (one-time-password) solution implemented in the user's SIM card. Through a mobile device, users are able to generate an OTP. This option enables the financial institutions to offer a secure and easy way for its customers to undertake on-line banking activities.

Banks can implement the services as value-added feature for customers who sign up for online banking access. Such add-on services will increase the mobility of a customer's bank account, thereby bringing further profits to the bank no matter where the customer travels and also create the bank's brand reputation as a total banking solutions provider.

An OTP application PIN code is used to start the authentication process and without both PIN and the automatically generated one-use password, a user cannot acce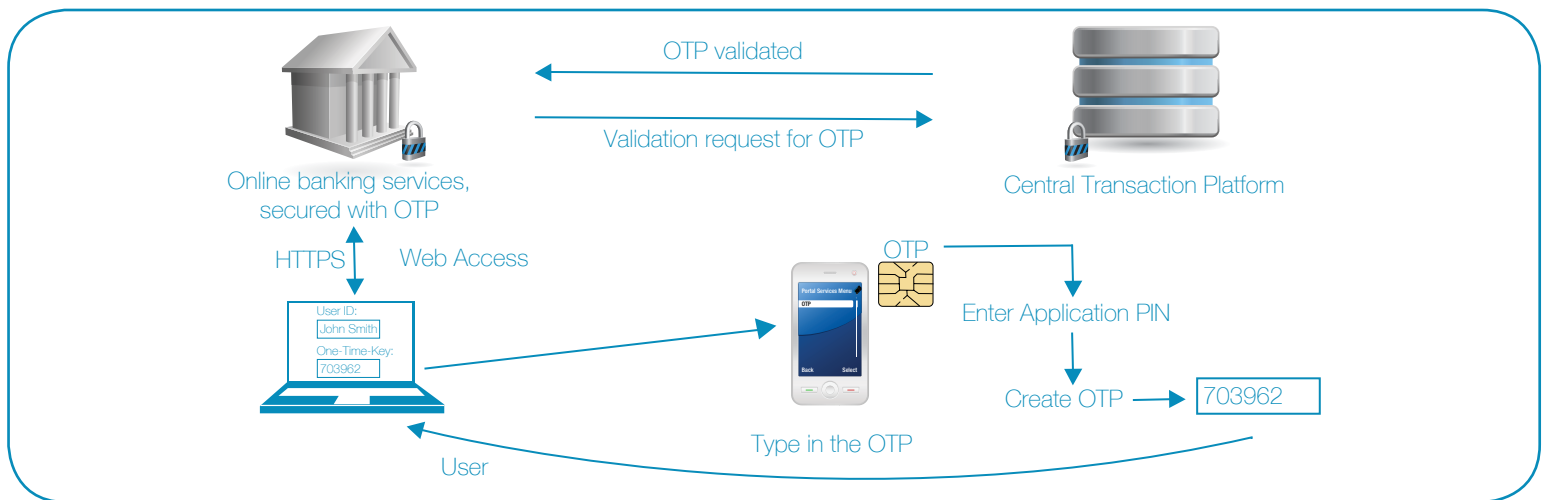ss their online banking account. The OTP is generated without an online connection, therefore not requiring any information to be passed to the user via SMS or the availability of full network coverage at all times.

» How It Works

A user wants to make a secure internet transaction. Entering the web login page the user is asked to type in the user ID and the password. User starts the OTP application which is loaded in the SIM to create the OTP by entering user's secure application PIN number.

When the OTP is generated by the applet and displayed on the mobile phone the user can type this OTP as a dynamic password into the "password" space of the web login page for a secure web access. The web site owner finally can ask Central Transaction Platform for validation by taking the OTP together with the user's ID.

The system will employ the open source protocols of the OpenID 2.0 specifications. The authentication method, beyond the scope of the OpenID specifications, will use the OTP output from the handset to authenticate the user.

OTP validated

Validation request for OTP

Online banking services, secured with OTP

Central Transaction Platform

HTTPS — Web Access

User ID:
John Smith
One-Time-Key:
703962

OTP

Enter Application PIN

Create OTP → 703962

Type in the OTP

User

» Security

As the OTP is generated with OTP Application PIN hence it is a Strong 2-Factor authentication, mobile handset with secure SIM application and application PIN. The connection to the validation server is installed via a secure VPN tunnel which guarantees high security level.

» Financial Institution Benefits

- Easy to implement and fast
- No additional infrastructure or resources are required (authentication servers are hosted at Simage)
- Less investment cost to provide the service
- Better reputation and brand image
- Increase customer base with secure and reliable services

» End User Benefits

- Mobile handset independent. SIM application works in any handset
- High secure authentication method
- Undisputed reliability of services, anywhere, anytime
- Convenient, fast and simple to use

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