# Case study

## Danske Bank

### BehavioWeb in a real world E-banking environment

Danske Bank is well known for providing their customers with great user experiences.

In their effort to further constantly challenge and increase user experience, they began moving into javascript for easy-to-handle strong security unified across platforms and devices.

In doing so, previous effective methods for fraud detection had to be abandonded, and the wish to bind sessions to customers rather than devices became apparent.

They evaluated the BehavioWeb fraud detection and chose BehavioSec as the behavioral biometrics partner most likely to succeed in ensuring that onine transactions originate from the correct user every time.
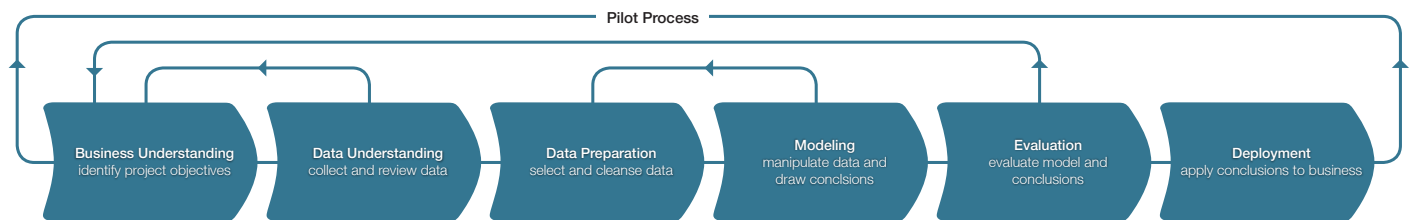
## BehavioWeb

BehavioWeb is our Fraud Detection solution for online applications. BehavioWeb uses Keystroke Behaviometrics to achieve Multilayered Security and deliver a new level of online trust. The user is identified by their typing input, which makes it possible to authorize or reject based on their keyboard usage while they log in to their account and perform transactions. Customers can deploy our detection engine either on-premises or in the cloud.

> Moving into the spacey area of biometrics, the most important qualities - besides a well functioning product - is the willingness to interact, options to tweak and develop on an ongoing basis, and a solid foundation in proving proper operation. With this choice, we feel well positioned for our future security developments.
>
> - Ebbe Skak Larsen, Chief Security Architect

## Methodology

Below you will see how we structured our pilot with Danske Bank, using a data mining life cycle. The functionality was presented in a report to get direct feedback on matching and verification of a subset of users. The trial included 18,000 live users and 540,000 transactions, and the goal of the trial was to show our performance and accuracy on real users. Danske Bank was provided with user statistics for FAR/FRR/EER, so that this technology could be compared to other alternatives on the market. Once their internal analysis was performed a decision was made to move forward with field testing on real users.



Pilot Process

| Business Understanding identify project objectives | Data Understanding collect and review data | Data Preparation select and cleanse data | Modeling manipulate data and draw conclsions | Evaluation evaluate model and conclusions | Deployment apply conclusions to business |

source: a visual guide to CRISP-DM methodology

## Results

In our pilot trials with Danske Bank, our BehavioWeb product was able to properly distinguish between correct user and imposter in 97.4% of the cases during login process for Danske Banks E-Banking platform, with an equal error rate of

**Session accuracy 99,7%**

2.6%. Furthermore with adding additional fields for a whole session (see Whitepaper for details) we reached a much higher degree of accuracy 99,7%.

These great pilot results led Danske Bank to deploy BehavioWeb on real users in live environment to further field test the technology. Full deployment to 2.5M users is expected during 2014.

### Danske Bank - Quick Facts

» Founded in 1871

» Public Company: OMX DANSKE

» Total number of retail customers: 5 Million in 13 Countries

» Total Revenue: 43.38 Bil. DKK

» Region: Scandinavia, Baltic, UK & Ireland

» Headquarter: Copenhagen, Denmark

BehavioSec is an award winning company delivering behavioral biometrics into financial services, mobile and defense industries. Our innovative fraud detection products protect web and mobile users by monitoring their patterns when typing, swiping, or moving the mouse. We are located in Stockholm, Sweden with regional sales offices in DACH, UK and US. In addition to our traditional product sales, we are also heavily involved in building future products together with partners like mobile handset manufactures, security industry leaders and DARPA.