

# iD MobiComBiom

## Mobile Communication Biometrics

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### Development of mobile technology: mobile all-rounders as our daily companions

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### MobiComBiom, the Swiss solution from BIOMETRY.com AG

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To solve this security problem, BIOMETRY.com AG has developed the product **MobiComBiom** (Mobile Communication Biometrics). This guarantees unique user authentication by requesting **four authentication processes** – biometric face recognition, biometric voice reco-

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### Mobile payment: high security thanks to MobiComBiom & Trust Level

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With mobile payment, the process is exactly the same as described

Mobile technology has advanced quickly and created all-rounders which accompany and support us in our day-to-day life. They yield many possibilities of applications,

but are also associated with high risks. Who can guarantee that the user of a handheld is actually allowed to use all the mobile services?

gnition, recognition of biometric lip movement, and word recognition – simultaneously with randomly generated numerals (random challenge response or otp – one-time password).

By pressing a specific “soft button” on the cell phone (e.g., numerals 1 and 3 are pressed simultaneously), the **MobiComBiom** authentication process is started. With it, four randomly selected numerals appear successively on the cell phone dis-

play. Similar to video telephony, the user speaks these numerals. The video and audio data is then securely transmitted to the provider (so-called trust center), where every numeral is converted into files (so-called templates, c. 4 KB). These are compared to the reference data that was previously learned by the user for the numerals 0,1,2,... to 9. If the data matches, the user of the cell phone is uniquely authenticated.

above. A positive authentication includes the user as confirmation of a 2D barcode on his mobile telephone that he uses for payment at the point of sale (e.g., shops).

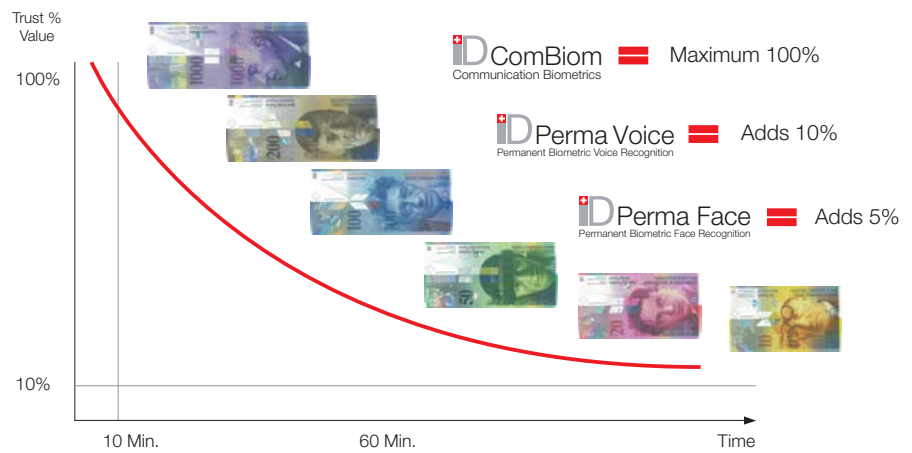
After authentication, the barcode receives a 100% trust level for a period of 10 minutes. The maximum amount authorized by the bank institute (e.g., CHF 5000) can then be paid. After that, the percentage rate successively lapses to percentage and payment amounts of lesser value (e.g., CHF 500) in order to allow for the chronologically increasing risk of theft. However, a

trust level of at least 10% (e.g., CHF 50) is guaranteed in order to always be able to guarantee micro payments, e.g., for parking fees. With every telephone call, the voice is biometrically authenticated and the trust level is increased with a match.

However, the increase in trust level is limited to 10% per telephone call. The maximum trust level of 50% cannot be exceeded in this way.

This is because a replay attack on an individual biometric could be carried out by clever hackers. However, this danger does not exist for the multimodal, simultaneous, biometric authentication to random challenge response contained in **MobiComBiom**.

If the user finds himself in a noisy setting, the possibility also exists of



the user increasing the trust level solely through biometric face recognition.

If the user wants to use the maximum sum, he must simply authenticate himself briefly, i.e., he must invoke **MobiComBiom** and verbally repeat the four numerals. **MobiComBiom** is a very secure process on one hand (with 4 nume-

rals and 4 verifications = 16 simultaneous authentication processes) and very user-friendly on the other hand. In addition, no expensive additional hardware is required since camera and microphones are already integrated into modern cell phones.

## BIOMETRY.com AG in brief

Biometry.com AG is a high-tech security company headquartered in Switzerland that secure and easily usable biometric authentications. A multimodal product as well as the individual application of certain modes result in a all-in-one software. This enables the most varied applications to protect the personal identity of people and their property. The algorithms used are the worldwide known **BIOID\***, which ensure highest Security and Comfort.

BIOMETRIC AUTHENTICATION FOR A SECURE WORLD!

# BIOMETRY

SWISS IDENTITY SECURITY SYSTEMS

Other products from Biometry.com AG:

**iDComBiom**  
Communication Biometrics

**iDMobiComBiom**  
Mobile Communication Biometrics

**iDBITCo**  
Biometric Transaction Confirmation

**iDPerma Face**  
Permanent Biometric Face Recognition

**iDPerma Voice**  
Permanent Biometric Voice Recognition

**iDBiDoc**  
Biometric Documentation

**iDsmile**  
smart-ident local entrance

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