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BANKING BIOMETRIC IDENTIFICATION

Abstract: Banking biometric identification today has become widespread, and continued integration into people's daily lives. Biometric identification is the presentation by the user of his unique biometric parameter and the process of comparing it with the entire database of available data. There are static, dynamic, behavioral, combined methods for biometric identification. The main problems associated with biometric identification in banking include fraud, leakage and theft, poor quality of collected data, as well as multiple data collection of one person by different organizations. Each year, the program of the BlackHat information security conference invariably contains reports related to biometric vulnerabilities, but there are no practically reports on the development of protection methods. Therefore, the purpose of this research is to study methods of protecting bank biometric identification.

Keywords: Biometric Identification; Bank Identification; Data Security; Authentication Method; Development of Biometrics; New Technologies.

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БАНКОВСКАЯ БИОМЕТРИЧЕСКАЯ ИДЕНТИФИКАЦИЯ

Аннотация: *Банковская биометрическая идентификация сегодня получила широкое распространение и продолжила интеграцию в повседневную жизнь людей. Биометрическая идентификация — это представление пользователем своего уникального биометрического параметра и процесс его сравнения со всей базой данных доступных данных. Существуют статические, динамические, поведенческие, комбинированные методы биометрической идентификации. Основные проблемы, связанные с биометрической идентификацией в банковской сфере, включают мошенничество, утечку и кражу, низкое качество собранных данных, а также многократный сбор данных одним человеком различными организациями. Каждый год программа конференции по информационной безопасности BlackHat неизменно содержит отчеты, связанные с биометрическими уязвимостями, но практически нет выступлений по разработке методов защиты. Поэтому целью данного исследования является изучение методов защиты банковской биометрической идентификации.*

Ключевые слова: *Биометрическая идентификация; Идентификация в банке; Безопасность данных; Методы аутентификации; Развитие биометрии; Новые технологии.*

There are different methods of biometric identification: static, based on the physiological characteristics of a person throughout his life; dynamic methods take as a basis the behavioral characteristics of people, mostly subconscious movements in the process of repeating any ordinary action: handwriting, voice, gait. One of the priority types of behavioral biometrics is the style of typing on the keyboard. When determining it, the printing speed, pressure on the keys, the duration of pressing the key, the time intervals between presses are fixed. A separate biometric factor may be the manner in which the mouse is used. In addition, behavioral biometry covers a large number of factors that are not related to a computer – gait, especially the way a person climbs stairs [**Ошибка! Источник ссылки не найден.**].

There are also combined identification systems using several biometric characteristics that can satisfy the most stringent requirements for the reliability and security of access control systems. Here are the main trends in the implementation of biometric access control in various market sectors: state, healthcare, corporations, transport, retail trade, higher education, banks.

Biometrics will continue to spread in the banking industry around the world, to improve the quality of customer service while improving the safety of ATMs and other facilities [**Ошибка! Источник ссылки не найден.**].

The accelerated adoption of biometric authentication at banking areas such as securing government pension payments, teller transactions and the opening of new accounts – is mainly due to the fact that biometrics is the only authentication method that 'binds' a user's digital credentials to a person. This is a vital capability for eliminating digital identity theft in an environment that has become increasingly complex and vulnerable to security threats [0, **Ошибка! Источник ссылки не найден.**].

Often, greater security creates barriers to legitimate access, but biometrics can bring security and convenience simultaneously, simplifying authentication while making it more robust and reliable. The technology has advanced to the point where fingerprint sensors can distinguish between legitimate and counterfeit biometric characteristics with «liveness detection». Intelligent encryption-enabled and tamper-resistant fingerprint devices are also available that further strengthen secure authentication and protect user privacy [**Ошибка! Источник ссылки не найден.**, **Ошибка! Источник ссылки не найден.**].

Looking ahead, biometrics authentication will only grow in importance. We live in the environment where each person has the growing list of digital identities for an expanding set of applications, stored on a variety of ID cards, tokens, smartphones and other mobile smart devices. Again, biometrics has the unique ability to bind this multitude of digital identities to an individual's single, true identity, in a manner that is private, secure and non-intrusive.

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