Entersekt

Build in trust with the Transakt SDK

Harness the power of Entersekt's banking-grade mobile security technology while enjoying the freedom to select the front-end developer of your choice.

Unbeatable mobile security

Entersekt's mobile security and interactive authentication solutions eliminate phishing, man-in-the-middle/browser, keystroke logging, call forwarding, SIM-swap, and number porting attacks. Noted for their ease of use, they allow online and mobile banking customers and shoppers to confirm sensitive transactions in real time, responding directly to authentication requests pushed to their mobile devices. All it takes is one tap.

Our product, the Transakt software development kit (SDK), uses industry-standard X.509 digital certificates and proprietary validation techniques developed specifically for mobile to uniquely identify every registered customer's mobile phone or tablet. Integrated into a mobile app, the SDK allows financial institutions and other enterprises to be certain they are communicating with a legitimate device. Banks' customers, in turn, enjoy peace of mind, confident that messages originate from a trusted source and that they cannot be accessed or altered by a third party.

Where rapid rollout is required, the off-the-shelf Transakt mobile app offers the same security features but with limited scope for customization.

Customer success story

Investec (LSE: INVP, JSE: INL) is a specialist bank and asset manager serving a niche client base in three main markets – the United Kingdom and Europe, South Africa, and Australia – and other territories.

Investec has enhanced the security of its online and mobile banking services with the Transakt SDK, introducing powerful new mobile security functionality while delivering the user experience demanded by its actively engaged and highly mobile clientele.

Case study: *Investec goes global with push-based, in-app user authentication*

Transakt SDK features

The Transakt SDK dramatically boosts the security of digital transactions while making life that much easier for online and mobile banking users. Here are a few key features.

Unique device ID

Entersekt's patented emCert mobile certificate technology generates a public/private key pair that uniquely identifies any registered banking customer's mobile device. Communications from the financial institution are in turn validated on the device, so that the customer can be sure of their source. With full control over user enrollment, only the bank is privy to the relationship between the emCert and the customer's identity.

Transaction signing

Customer responses are signed with the device's private key, supporting nonrepudiation. The Transakt SDK also allows signing of individual batched transactions on a mobile device, meeting stringent regulatory requirements in Singapore and elsewhere.

Custom signing certificates

emCert is always used to establish the secure communication channel between the bank and mobile device but multiple certificates from certification authorities can be hosted in the protected Entersekt key store. This allows banks to continue using certification authorities they trust or are integrated to for certain business processes.

Trusted channel for out-of-band authentication and more

The Transakt SDK's self-contained, NIST-compliant cryptographic stack and communications layer enables an isolated, end-to-end encrypted communications channel between the user's mobile device and the financial institution's mobile app server. No third party, including Entersekt, can access these communications.

Because this cryptographic stack forms an entirely separate communications channel from the conventional Transport Layer Security (TLS) channel initiated via the mobile device's operating system, even transactions originating from the same device can be authenticated out of band.

Secure browser pattern

The Transakt SDK also enables trusted TLS connections to the bank's web servers, protecting mobile-initiated communications from man-in-the-middle tampering or eavesdropping.

Dynamic public key pinning

For protection against man-in-the-middle attacks exploiting rogue certificates, the Transakt SDK provides the option of public key pinning. Here, the mobile banking app disallows a TLS connection if it cannot match a certificate to the financial institution's custom list of trusted certificates.

FIPS 140-2 Level 3 on-premise endpoint

The Transakt SDK is the user-facing component of the Entersekt security ecosystem. It works in conjunction with the Transakt Secure Gateway hardware appliance, where all encrypted communications terminate. The Transakt Secure Gateway, which communicates with the institution's back-end services, incorporates a FIPS 140-2 Level 3 hardware security module for encryption functions.

Full protection from malware and brute force attacks

Layered mobile and server-side detection/prevention procedures in place mean the Transakt SDK is invulnerable to common malware, SIM swaps, and brute force attacks.

Additional layers of security

Transakt natively supports fingerprint biometrics on mobile devices with this capability. It also provides device and application context to the Transakt Secure Gateway for context-based risk scoring. Data points used include device type, operating system version, geographic location, and advanced detection of rooting, jailbreaking, or similar mobile operating system security bypass hacks.

Simple one-click authentication

Transaction authentication requests are automatically pushed to the banking customer's mobile device. The customer responds by simply tapping Accept or Reject. No clumsy re-entry of one-time passwords or answers to challenge questions is required. (The Transakt SDK enables the generation of time-based or hash-based one-time passwords as a fallback if the mobile device is offline.)

The Transakt Secure Gateway hardware appliance

Discover more

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