

V-OS Messaging

Mobile Digital Identity,
Authentication and Authorization

Stronger with V-OS

Virtual Secure Element

Building on the industry-leading patented V-OS Virtual Secure Element, V-Key has developed a highly secure framework that integrates into mobile apps to derive multiple business benefits, including a banking and government-grade secure messaging and communications solution for iOS and Android.

DATA SECURITY CHALLENGE – SOLVED

Insecure SMS Replacement

A secure alternative to SMS, for organizations that push information directly to end-user mobile devices. SMS has become ubiquitous, but suffers from some fundamental flaws, including:

- ◆ Unencrypted messages that can be intercepted in-transit
- ◆ Vulnerable to being intercepted by malware on the phone itself, especially on Android
- ◆ The SMS network, known as SS7, has been proven to be vulnerable to intrusion, and can provide an attacker complete access to SMS and voice history

Secure End-to-End Communications

Rely on in-app notifications or push notifications, which can be encrypted using industry-standard techniques such as Public Key Infrastructure (PKI).

However, the mobile app's encryption key and digital certificate have few or no cybersecurity protections, and can be easily stolen or hijacked.



Mobile Identity



V-OS App Protection



V-OS Smart Token



V-OS Messaging



V-OS Face Biometrics
V-OS eKYC



PROBLEMS SOLVED



Securing Data In Transit

Communications cannot be intercepted or decrypted by malicious 3rd party interceptions.



Securing Data At Rest and Data In Use

V-OS secures the mobile app where encryption keys, digital certificates, and message history are kept.



Verifying Identity

Use of PKI technology guarantees end-to-end encryption and parties can identify themselves with digital certificates.



Non-repudiation

Every message sent is digitally signed by the originating party.

V-OS MESSAGING USE CASES

Secure Data Push



One-Step Notification

Push notifications send targeted content directly to the mobile device. Send short messages without users initiating a request for data.



Two-Step Notification

Helps to work around size restrictions of push notifications, allowing the mobile app to securely download any kind of rich media.



V-Key is a global leader in software-based digital security, and is the inventor of V-OS, the world's first virtual secure element. Contact us today to schedule an appointment and demonstration.

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