intertrust®

whiteCryption Secure Key Box for Web
Industry-leading key protection now for web apps

Close your toughest web app security gap

The web has evolved into a primary place for business to operate, driven in large part by JavaScript's unprecedented functionality and flexibility for creating web apps.

However, the rapid adoption of JavaScript and proliferation of web apps has left serious security gaps that grow wider as applications become more complex. One of the most damaging points of compromise—one which has lacked a comprehensive solution—is theft of cryptographic keys.

Encryption is only as secure as your keys

Information shared via a browser must be encrypted to secure sensitive and proprietary data from end-to-end. Organizations need to ensure that customer financial transactions aren't tampered with, media content isn't stolen, or health care data compromised. Once your secrets are securely encrypted, however, you still need to safeguard the encryption keys.

Compromised keys can be used to gain access to sensitive data and systems, impersonate a legitimate user, generate fraudulent digital signatures, modify or create entirely false data and transactions, or for other malicious purposes. Given that traditional key protection solutions cannot be used by browsers, security for secret keys in web apps has been limited. **Until now.**

White-box key protection comes to web apps

whiteCryption Secure Key Box (SKB) for Web brings Intertrust's proven white-box cryptography library to web applications. The first and only white-box for web solution, SKB for Web makes cryptographic operations highly resistant to attacks targeting your keys and credentials.

Delivered as a simple drop-in library, SKB for Web securely performs all common cryptographic functions. It protects cryptographic keys in sensitive applications, even when running on a compromised host. SKB for Web offers stronger, broader protections than, for example, the Web Crypto API, which does not secure against attacks running outside the browser.

Business benefits

Keep your secret keys secret
Ensures cryptographic keys are never exposed, whether in memory or at-rest

Protect keys on compromised hosts
Secures keys and credentials even when running on a compromised system

Secure keys against side-channel attacks
Protects keys from attacks coming from both the browser and the underlying host

Secure your user authentication process
Stops hackers from using compromised keys to access your applications

Drop-in and go
Quickly replaces standard cryptographic libraries including the Web Crypto API

Store and use your cryptographic keys safely

Insecure storage of cryptographic keys remains one of the top web application vulnerabilities. Moreover, every time a cryptographic operation is performed in a standard web application, the keys are exposed in computer memory for easy extraction.

SKB for Web secures keys at rest, in-transit, and in-use. Keys are never exposed in the clear, removing developer burden to store them safely. Its proprietary protection algorithms prevent hackers from using either static or dynamic methods to extract keys. Your keys always stay encoded, even when being used in cryptographic operations.

Secure keys against side-channel attacks

Side-channel attacks present a growing threat to cryptographic key security. Attackers continuously find new vectors to exploit, and browser APIs and third-party cryptographic libraries cannot protect keys from attacks from the underlying host. SKB for Web protects keys and credentials from side-channel attacks by making them safe from exploits not just running within the browser, but also natively on the PC or device.

Learn more about whiteCryption Secure Key Box at:
   intertrust.com/whitecryption

Features

Continuously tested by experts
Regular third-party penetration testing ensures maximum security

Keys always encoded
Innovative technology keeps keys encoded and secure even when in use

Supports wide variety of cryptographic functions
Supports all popular algorithms and functions for encryption / decryption, signing, verification, key wrapping / unwrapping, key generation, key agreement, and more

Protects across platforms
Runs on all major web browsers

intertrust®

Building trust for the connected world.

Learn more at: intertrust.com
Contact us at: +1 408 616 1600

Intertrust Technologies Corporation
920 Stewart Drive, Sunnyvale, CA 94085