



Cloudflare + Approov Mobile Security

Unparalleled protection against mobile bots and fake mobile apps

Cloudflare now integrates and delivers Approov Mobile Security as part of a comprehensive anti-bot solution, providing Cloudflare customers and their end users worldwide with new protections against mobile bots and mobile originating API attacks.

The Problem

Mobile apps are the weakest link in API defense: easily reverse-engineered, or running in hacked environments. Attackers mimic real apps with fake HTTP traffic. Without mobile-specific protection, bots bypass web defenses.

The Solution

With Approov, every single API request from a mobile app can be validated by Cloudflare, blocking any fake or modified apps and manipulated devices from accessing APIs. Approov provides:

- **Easy deployment and management**
- **Comprehensive App & Device Attestation**
- **Deterministic, Zero-False-Positive Protection**
- **API Key & Secret Protection with Dynamic Updates**
- **Protection against MitM Attacks**
- **Platform independent security: iOS, Android, HarmonyOS**

Approov Mobile Security + Cloudflare: A single integrated solution that stops bots across both web and mobile and defends APIs from all types of attacks.



“**We saw an immediate 99.9% reduction of malicious access to our backend resources once Approov was implemented. Approov’s ability to provide unlimited and unthrottled protection is unlike native or any other mobile apps solutions.**”

- Kevin Kim, COO at Genopets

Approov Features

- **Easy deployment and management:** Approov’s lightweight SDK integrates easily into mobile apps with minimal latency, enabling real-time verification without slowing down the user experience.
- **Comprehensive App & Device Attestation:** Approov prevents bots on mobile by granting API access exclusively to verified, legitimate apps on untampered devices. Even sophisticated “mobile bot” attacks are stopped effectively by Approov’s app attestation and token-based authentication.
- **Deterministic, Zero-False-Positive Protection:** Approov’s highly deterministic attestation mechanism ensures

only verified apps can access APIs, making it immune to false positives, which is essential for applications with a high volume of legitimate mobile interactions.

- **API Key & Secret Protection with Dynamic Updates:** API keys are delivered just-in-time to apps, but only when the app and environment are validated as safe. API Keys, secrets and certificates are dynamically managed and can be rotated immediately when this is required.
- **Protection against MitM Attacks:** Approov prevents even device-based attacks, combining dynamic certificate pinning, attestation, and short-lived tokens.
- **Platform independent security:** Approov supports iOS, Apple Watch, Android, Non-GMS devices, HarmonyOS.
- **Scalability and Performance:** Approov uses Cloudflare's network infrastructure to scale globally, providing quick response times for web bot detection without impacting app performance.

The combination of Approov's unique approach to protecting mobile apps and APIs with protection offered by Cloudflare Bot Management, Cloudflare API Gateway and Cloudflare Turnstile now gives unparalleled protection against any automated attacks from any types of bots.

Use Cases for Approov

- **Mobile Banking & Payment Apps:** Approov prevents account takeover (ATO) and fraud and protects sensitive financial transactions from man-in-the-middle (MitM) attacks.
- **Mobile Gaming:** Approov stops cheating and unauthorized modifications by detecting repackaged or tampered game apps. And protects in-game purchases and prevents attackers from manipulating business logic.
- **Healthcare Apps:** Supports compliance with standards like HIPAA, GDPR, PCI DSS by verifying device integrity and protecting API secrets.
- **IoT - Connected Cars, Medical Devices, Smart Home:** Ensures only authenticated apps can interact with IoT/OT devices and critical APIs protecting critical infrastructure and edge systems.
- **App Store & Distribution Integrity:** Helps app stores and distribution platforms ensure only genuine and uncompromised apps are listed. Provides trust for end-users that downloaded apps are legitimate.

Why Approov Mobile Protection is Better

Approov Mobile Security

- ✓ Focus on app and device integrity
- ✓ Dozens of device integrity checks
- ✓ Deterministic - Zero false positives
- ✓ Over the air policy and API Key updates
- ✓ Dynamic API Key protection and rotation
- ✓ Lightweight SDK + Cloud Service

Other Approaches

- ✗ User taps/scrolls -> false positives
- ✗ Limited root/jailbreak detection
- ✗ Black box ML -> false positives
- ✗ App must be redeployed
- ✗ Hardcoded keys
- ✗ On device security can be hacked

About Approov

Based in Edinburgh, Scotland and California, USA, Approov has a unique and fully patented approach to app attestation that has been adopted by major organizations worldwide.

Contact Information:

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- Ask your Cloudflare contact about Approov Mobile Security
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