

# **Device-Bound Signatures(TM)**

A New Standard for Context-Aware Digital Agreements

White Paper - Published by Swifttract / MyNDA - June 2025

## **Table of Contents**

1. Executive Summary
2. Introduction & Background
3. Legal & Technical Foundation
4. The Signing Experience
5. Applications and Licensing
6. Market Opportunity
7. Technical Implementation
8. Compliance & Privacy
9. Trademark and Patent Status
10. Conclusion

## **1. Executive Summary**

Device-Bound Signatures(TM) (DBS) offer a next-generation solution to digital agreement enforcement by tying the legal effect of a signature directly to the device on which it was executed. Unlike traditional e-signatures, DBS creates a cryptographic and contextual fingerprint of the signing device, making the agreement non-transferable, trackable, and enforceable in high-security contexts like events, media rights, NDAs, and more.

## **2. Introduction & Background**

Traditional e-signature platforms lack security context. A digital signature can be executed anywhere, by anyone who has access to the signing link or email. In environments such as studios, lectures, courtrooms, or VIP events, this can result in misuse of image rights, media distribution, or unauthorized access. Device-Bound Signatures solve this by binding the agreement to the actual device and environment used during signing.

### **3. Legal & Technical Foundation**

DBS operates through a combination of device fingerprinting (e.g., browser metadata, IP, GPS, device model), jurisdiction-aware clause rendering, and cryptographically hashed session tokens. Using the Typpd engine, the agreement language adapts in real time to the jurisdictional and environmental data collected.

## **4. The Signing Experience**

A user visiting an event page receives a QR code triggering a real-time NDA. Their device is scanned for technical metadata, the agreement is rendered with dynamic clause logic, and upon signature, a hash is generated linking the document to the device and time. A confirmation QR or token is issued that can be scanned at access points.

## 5. Applications and Licensing

Device-Bound Signatures are used in:

- Entertainment: controlling backstage and media rights
- Legal: securing one-time-use NDAs
- Ticketing platforms: replacing wristbands or confiscated phones
- Enterprise: tracking who signed what, on what device

The system is available via API, white-labeled dashboard, and mobile app. Licensing partners include legaltech firms, event platforms, and content distributors.

## **6. Market Opportunity**

With an increasing demand for secure, verifiable, and enforceable digital interactions, the market for DBS spans industries - from legal and HR to media and sports. Digital identity validation, AI-powered legal clause generation, and hardware-specific verification are expected to converge, with DBS at the center of this evolution.

## 7. Technical Implementation

The core technology stack includes:

- Frontend: React/Next.js with mobile responsiveness
- Backend: Supabase with metadata storage and logging
- AI Layer: OpenAI API + Typdpd clause engine
- Device Metadata: JavaScript-based fingerprinting and geolocation capture
- QR Code generation: API-based with live access tracking
- Integration: GitHub repo, Swagger-style API documentation, Zapier hooks



## **8. Compliance & Privacy**

Device-Bound Signatures meet GDPR and CCPA standards by hashing all identifiable data and offering data subject access requests (DSAR). The system does not store identifiable facial or biometric data unless explicitly required.

## **9. Trademark and Patent Status**

Device-Bound Signatures(TM) is a pending U.S. trademark filed by Swifttract Inc. and an active technology offering on MyNDA.us. A provisional patent has been filed detailing the methods of binding device characteristics to digital agreement execution, dynamic clause rendering, and QR-based gatekeeping. Supporting screenshots and white-labeled applications are in commercial use.

## **10. Conclusion**

As the digital world demands more trust, security, and proof of context, Device-Bound Signatures provide a scalable, legally defensible, and intuitive solution. This white paper outlines the technical, legal, and market rationale for DBS - and opens the door for global license and adoption.