



# WayTag Specifications

## 1. Core Functionality Overview - *What WayTag does at its foundation.*

### Core Features:

- WayTag Generator – Create unique, location-bound tags instantly.
- Reverse Lookup – Convert WayTags back into map coordinates or address descriptions.
- Offline Access – Generate and retrieve WayTags even without an internet connection.
- Smart Search – Find places via tags, names, or landmarks.
- User-Claimed Locations – Let users verify and customize their tagged address.

## 2. Technical Parameters - *Specs that give confidence to developers, integrators, or IT teams.*

### Specifications:

- Geospatial Engine - Based on high-precision geohashing + contextual tagging.
- Data Architecture - Built on scalable, cloud-native microservices.
- Performance - Millisecond-level query resolution, low-latency sync.
- Security - End-to-end encryption, token-based API authentication, role-based access.
- Redundancy - Global CDN for tag lookups; multi-region failover.

## 3. User Roles & Access Control - *How different actors interact with the platform.*

### User Roles:

- Individual Users - Can generate, claim, and share WayTags.
- Business Operators - Manage multiple tagged locations with custom metadata.
- Delivery/Logistics Agents - Lookup + validate destination tags.
- Administrators - Monitor, verify, or override tags for accuracy and abuse control.
- Partners/API Clients - Manage app tokens, usage caps, and integration credentials.

## 4. Dashboard & UX Capabilities - *Features that make the platform usable at scale.*

### Features:

- Intuitive Tag Creation Tool
- Visual Map Interface – Drop pin to generate WayTag.
- Bulk Upload Support – For businesses mapping large asset groups.
- Tag Claim & Verification Flow
- Mobile-First Design – Optimized for low-bandwidth devices.

## 5. Compliance & Security - *Addressing data handling, safety, and governance.*

### Compliance Highlights:

- GDPR & CCPA Compliant

- Data Encryption at Rest and in Transit
- Audit Trails for Tag Activity
- Tag Ownership Verification – with phone/email proofs.
- Role-based Privacy Controls – for visibility and sharing.

## **6. Integration & API** - *How other systems can use WayTag.*

- REST & GraphQL APIs
- Webhook Support for Tag Updates
- SDKs for Web, Android, and iOS
- Plug-ins for Shopify, WordPress, logistics tools
- Geofencing & Routing API Compatibility

## **7. Monetization & Marketplace** - *How users or partners can earn or spend.*

- Claimable Premium Tags – Vanity tags or commercial locations.
- Tag Verification Services – For businesses or governments.
- Third-Party Services Directory – Pay to associate services with a WayTag.
- Local Business Ads – Promote nearby offers linked to tag regions.
- Revenue Share on Partner API Calls

## **8. Analytics & Reporting** - *Operational and strategic insights for power users.*

- Tag Usage Stats
- Search Heatmaps
- Claim Activity by Region
- API Call Logs
- Exportable Reports (CSV, JSON)

## **9. Localization & Cultural Accuracy** - *Making the system globally usable and locally relevant.*

- Multi-Language Interface Support
- Localized Tag Formats (e.g., Arabic script, Swahili, Amharic)
- Cultural Name Integration – Allow use of local place names and references.
- Offline Sync for Rural Use Cases
- Community Reporting – Let locals correct or annotate places.

## **10. Offline Mode & Mesh Sync** - *Resilience in low-connectivity or infrastructure-poor regions.*

- Offline Tag Generation – Generate and cache WayTags without internet access.
- Device-to-Device Sync – Share tags via Bluetooth or local mesh networks.
- Auto-Sync on Reconnect – Changes or claims queued and synced when back online.
- Lightweight App Footprint – Optimized for low-spec Android devices.
- Encrypted Offline Storage – Keep user data secure even without cloud access.

## **11. Civic Integration** - *Supporting governments, NGOs, and public infrastructure.*

- Postal System Mapping – Bridge legacy addresses with WayTags.
- Emergency Services Integration – Use WayTags for faster response and dispatch.
- Municipal Dashboards – Tag tracking and service coverage analytics.

- Public Feedback Channels – Allow users to request tagging for unaddressed areas.
- Land Registry & Housing Linkage – Assign official identifiers via WayTags.

## **12. Social Sharing & QR Codes** - *Make it easy to share locations across platforms and communities.*

- One-Tap Sharing to WhatsApp, SMS, Email
- Auto-Generated QR Codes for Each WayTag
- Printable Labels & Stickers– For physical tagging at homes or shops.
- Tag Pages with Custom Descriptions & Images
- Social Media Embeds– Share WayTags with preview cards on Twitter, Facebook, etc.