



## **ChainLynx Bikepacking App – Journals**

Pre-Release Technical Documentation — November 2025

## 1. Overview

The Journals feature is a core component of the ChainLynx Bikepacking App. It allows riders to document their experiences, reflections, and observations along their journeys. Designed to operate offline and with strong privacy guarantees, journals empower users to keep detailed travel logs that can later be shared selectively with individuals, groups, or the wider community.

## 2. Concept and Purpose

**Concept:** Journals serve as personal travel diaries that integrate with routes, meetups, and the user's overall ChainLynx experience. Entries can include written notes, timestamps, location tags, and optional photos, allowing riders to create rich narratives of their trips.

**Purpose:**

- Encourage reflection, storytelling, and personal growth during multi-day trips.
- Enable controlled sharing of experiences with specific users or the public feed.
- Contribute valuable community knowledge through shared insights, without compromising privacy.

## 3. Architecture and Storage

**Design:** Journals are stored locally on the user's device by default. They can be optionally synchronized to the user's personal cloud storage (iCloud, Google Drive, or OneDrive) for backup and portability.

**Storage Structure:**

- Each journal entry is saved as an encrypted JSON or lightweight Markdown file.
- Attached media (photos or audio notes) are stored in user-owned storage directories.
- The backend has no access to private journal content — only metadata of shared entries (title, date, route reference).

## 4. Privacy and Encryption

**Encryption:** All journal content is encrypted locally with AES-256 before cloud synchronization. Decryption keys never leave the device.

**Privacy Model:**

- Private journals remain device-only or in user-owned cloud storage.
- Shared journals are uploaded selectively, containing only the intended entry.
- Shared items are assigned random hashes instead of user IDs.
- Journals can be unpublished or deleted at any time by the user.

## 5. Sharing Logic

**Sharing Modes:**

1. **Private:** Default mode; journal remains fully local and encrypted.
2. **Shared:** Specific entries can be shared with selected users or groups (e.g., meetup

members).

**3. Public:** Shared with the community via the global feed. Only relevant metadata and media are uploaded.

#### **Workflow:**

1. User selects an entry and chooses “Share”.
2. App encrypts the journal and generates a public-safe version.
3. The backend stores the shared copy and metadata for display.
4. The user can revoke access at any time; the shared copy is deleted.

## **6. Integration with Routes and Feed**

Journals are deeply integrated into the ChainLynx ecosystem:

- Route Integration — Each journal can be linked to a route, allowing entries to appear along a map timeline.
- Feed Integration — Shared journals can appear in the social feed under their associated route.
- Meetup Context — Riders can share journals with participants of the same meetup for collaboration.

## **7. Offline Behavior**

Journals work fully offline. Users can create, edit, and organize entries without connectivity. When the device reconnects, any cloud synchronization or shared updates are queued and sent securely in the background.

#### **Offline Capabilities:**

- Local autosave of all content.
- Queued upload mechanism for shared journals.
- Background sync upon reestablished connection.

## **8. Recommendation**

The journal system exemplifies ChainLynx's privacy-first philosophy: personal by default, shared only by choice. Its seamless integration with routes, meetups, and the feed enables users to capture meaningful experiences without sacrificing control over their data.