

- MOBILE APP PROPOSAL

# Maps that work with *no signal*

Hikers open Trailmark where coverage is worst, so this proposal adds downloadable trail maps and offline route tracking to the iOS and Android apps next quarter.

- WHAT USERS HIT

# The app fails exactly where people need it most.

43%

SESSIONS WITH NO NETWORK

Share of trail sessions that lost signal for over 5 minutes.

#1

REQUEST IN APP REVIEWS

Offline maps lead feature requests for three quarters running.

2.1x

CHURN AFTER A FAILED LOAD

Users who saw a blank map cancel at twice the normal rate.

Source: Trailmark analytics and app review tags, last 90 days (fictional data)

02 / 16



- SCOPE

Three pieces, shipped in order,  
so the app *never shows a blank map* again.

01

### Download a region

Vector tiles for a park, capped at 150 MB,  
saved before the trip.

02

### Record offline

GPS track and photos stored locally,  
synced when signal returns.

03

### Graceful fallback

If nothing is downloaded, show the last  
cached view with a clear notice.

Out of scope: offline search and turn-by-turn voice

03 / 16



- OFFLINE FIRST

Store locally first,  
sync in the background,  
*treat the network as a bonus*

A local SQLite store becomes the source of truth on the device, and a sync queue retries uploads with backoff once the phone is back online.

Same pattern on iOS and Android

- WHAT WE NEED

# 3 engineers for one quarter to ship offline mode

TEAM

2 mobile, 1 backend

12 weeks, starting  
January

WEEKS 1 TO 4

Tile packaging service and region  
download screen.

WEEKS 5 TO 9

Local store, offline recording and  
sync queue.

WEEKS 10 TO 12

Field test on 5 real trails, then staged  
release.

mobile@trailmark.example · trailmark.example

16 / 16