3-Week MVP Proposal: In-Person Meeting Scheduling
+ NDA Signing

Real-time updates via JetStream; booking correctness enforced in Postgres

Date: 3 February 2026

Objective

Deliver a working MVP of a service that lets a host publish in-person availability and share a link; a guest selects a slot; an NDA is generated and signed; and both parties receive the signed document plus a calendar invite. The booking page updates in near real time as slots are held or confirmed.

Key technical decisions

- Postgres is the source of truth for double-booking prevention (transaction + unique constraint).
- JetStream is used as the event backbone (slot updates, workflow triggers, replayable events).
- E-signature is provided by a third-party provider to ensure audit trails and reliable signing workflows.

MVP scope (included)

- **Host setup:** meeting type (duration, buffers, timezone), location text, recurring availability, blackout dates, shareable link.
- **Guest booking:** slot picker (timezone safe), guest details, hold mechanism while signing.
- **NDA workflow:** template variables, PDF generation, embedded signing, webhook processing, store signed PDF + audit metadata.
- **Confirmations:** email to both parties, ICS calendar invite, host dashboard listing bookings and NDA status.
- **Real-time updates:** publish events (hold/confirm/cancel/sign) and push availability changes to active viewers.
- **Deployment:** staging + production, logging/error reporting, backups for DB and documents.

Out of scope (not in 3-week MVP)

- Google/Microsoft calendar sync (blocking external events).
- Payments/subscriptions.
- Team scheduling (round-robin).
- SMS notifications (email only for MVP).
- Advanced location rules (maps, geofencing, reveal-exact-address-after-NDA policy engine).
- Advanced admin/dispute tooling.

Execution plan (3 weeks)

Week 1: Foundations + booking correctness

- Implement core data model + migrations (Users, MeetingType, AvailabilityRules, Bookings, Documents, AuditEvents).
- Availability computation endpoint (generate slots from rules + exceptions).
- Booking endpoints with correctness guarantees: create hold with TTL, confirm booking, cancel; enforce unique constraint.
- Basic host dashboard: create meeting type and availability.
- Basic guest booking page: view slots, select slot, create hold.

Acceptance: concurrent booking attempts cannot produce double-booking; slots render correctly across timezones and DST.

Week 2: JetStream realtime + core UX

- Define event subjects + payloads (slot.held, slot.released, booking.confirmed, booking.canceled).
- Implement realtime gateway (SSE or WebSocket) that subscribes to JetStream and pushes updates to clients.
- Booking page realtime behavior: slots disappear or become unavailable without refresh when held/confirmed by someone else.
- Transactional emails for hold/confirm/cancel events.
- Hold expiration returns slot to available automatically.

Acceptance: two browsers show slot updates within seconds; expired holds restore availability.

Week 3: NDA signing + hardening + release

- NDA template and server-side PDF generation; store documents in object storage.
- Integrate e-sign provider: create envelope, embedded signing, process webhooks, store signed PDF + audit data.
- End-to-end confirmation: on signing completion, confirm booking and email both parties signed NDA + ICS invite.
- Hardening: idempotency keys on critical endpoints, webhook retries/deduplication, dead-letter logging.
- Minimal support actions: resend email, cancel booking, release slot.

Acceptance: host link -> guest picks slot -> signs -> both receive signed PDF + meeting invite; webhook replays do not duplicate actions.

Reference event taxonomy (JetStream subjects)

```
slot.held
slot.released
booking.confirmed
booking.canceled
nda.created
nda.sent
nda.signed
nda.completed
notify.email.requested
notify.email.sent
```

Effort, budget, and operating costs

Team rates (as provided)

Role	Rate (EUR/hour)
Data engineer	100
Arturs (full stack developer)	75
Eugene	150

Estimated hours (3-week MVP)

Role	Hours	Cost (EUR)
Arturs (full stack developer)	150	11,250
Data engineer	45	4,500
Eugene	45	6,750
Total	**240**	**22,500**

Operating cost estimate (beta scale)

At low volume (hundreds to about 1,000 bookings per month), the monthly run cost is typically driven by compute, the database, and especially the e-signature plan. Email and storage are usually minor at MVP volume.

- Compute + DB + storage: roughly 50 to 150 EUR/month depending on provider and instance sizes.
- Email: typically a few EUR/month at MVP volume.
- E-sign provider: plan-dependent; often the largest single line item early on.
- SMS (if added): can increase costs significantly; not included in this MVP.

Risks and mitigations

- **Concurrency and double booking:** enforce unique constraints and transactional booking confirmation; use idempotency keys.
- **Webhook reliability:** retry + deduplicate + dead-letter logging; manual resend tools for support.
- **Timezone and DST issues:** store UTC, render local; test DST transition dates explicitly.
- **Privacy (documents and locations):** least-privilege access, encrypted storage, retention policy, audit logging.

End-of-MVP deliverable summary

- A shareable booking link that behaves like a real product.
- Realtime slot updates (no page refresh required).
- NDA signing flow resulting in stored signed PDF and audit metadata.
- Host dashboard showing bookings and NDA status.
- Deployed system with basic monitoring and backups.