

SAMPLE DELIVERABLE

MVP DELIVERY PACK (HP-MVP-DP-001) V1.0, PUBLIC EDITION

Haypartido MVP Delivery Pack

Requirements, process maps, user stories, architecture, data model, API contract, payments and identity design, operations, test results, delivery record, go-live runbook and decision log for a launchable v1 of a football marketplace.

CLIENT

Haypartido (Goudplevier’s own product, used as the worked example)

PERIOD

July to September 2026

AUTHOR

José Lucas, Goudplevier

ENGAGEMENT

MVP in six weeks, whole product

STATUS

Baseline v1.0 at go-live readiness

DATA

Public edition: illustrative figures; operational values by intent, see section 0.3

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Figures and tables are numbered in order of appearance. Cross-references use section numbers.

0. Document control

Table 1. Document identification

FIELD	VALUE
Title	Haypartido MVP Delivery Pack
Document ID	HP-MVP-DP-001
Version	1.0 (baseline at go-live readiness)
Status	Sample deliverable, public edition, illustrative data
Engagement	MVP in six weeks (fixed price, fixed scope): extended by one week for store submission
Client	Haypartido (Goudplevier's own product, used as the worked example)
Author	José Lucas, Goudplevier
Reviewers	Product owner; a second analyst for sections 5 to 10
Distribution	Public edition, goudplevier.co.uk

Table 2. Change history

VERSION	DATE	AUTHOR	CHANGE
0.1	2026-07-14	JL	Skeleton: sections, ID scheme, first requirements list from the design brief
0.4	2026-07-31	JL	Process maps agreed; stories estimated; architecture decisions ADR-001 to ADR-004 recorded
0.7	2026-08-22	JL	Data model and API contract frozen for v1; test cases drafted against FR list
0.9	2026-09-05	JL	Payments design updated to decision DEC-011 (every online booking paid online); test results added
1.0	2026-09-10	JL	UAT complete; go-live checklist and runbook; RAID and decision logs closed for v1

0.1 Conventions

Identifiers are stable across documents and tools: **OBJ-n** objectives, **FR-nnn** functional requirements, **NFR-nnn** non-functional requirements, **US-nnn** user stories, **TC-nnn** test cases, **ADR-nnn** architecture decision records, **DEC-nnn** product decisions, **R-nn / A-nn / I-nn / D-nn** risks, assumptions, issues and dependencies. A requirement is traced forwards to the stories that implement it and the test cases that prove it (Appendix B). Priorities use MoSCoW. Times are Europe/Madrid unless stated; money is in euro cents internally and shown in euro.

0.2 Terms

The venue console is **La Mesa** ("the desk"); its rooms are **Diary**, **Games**, **Caja** (the till) and **Your venue**. A **host** is the player who wears the armband for one game. A **seat** is one place in a game. A **slot** is one bookable hour on one pitch. Full glossary in Appendix A.

0.3 Illustrative data

NOTICE

This is the public edition of a Goudplevier delivery pack, prepared on our own product so that every section can be shown in full. The product, its rules and its architecture are real. Counts, dates, names, amounts and test results are illustrative and chosen to show the shape of the work; live operational values such as limits, windows and thresholds are described by intent rather than by number. Screens show seeded demo data.

1. Executive summary

Haypartido is a two-sided marketplace for amateur football in Spain. Players buy a single seat in a game that already exists; venues sell hours that would otherwise go unsold and run their day from one diary. Goudplevier was engaged to take the product from a design brief to a launchable v1 on iOS, Android and the web, with payments, a venue console and a staff console, in a fixed six-week window.

The engagement delivered the scope in section 3 with one extension: store submission moved into week seven because Apple review took longer than the plan allowed (I-03). Every functional requirement marked Must in section 5 is implemented and covered by at least one passing test case (section 16, Appendix B). The product is ready for a controlled launch in one province with the checklist in section 18.1 completed by the product owner.

Table 3. Outcome at a glance (illustrative)

MEASURE	PLANNED	DELIVERED	NOTE
Functional requirements (Must)	38	38	All traced to passing tests
Functional requirements (Should / Could)	8	6	FR-039 and FR-044 deferred to the post-MVP backlog (section 21)
User stories	61	61	4 sprints of 1.5 weeks
Test cases executed	118	118	116 pass, 2 pass after fix; 0 open Major or Blocker
Surfaces	Web, iOS, Android, venue console, staff console	As planned	One codebase for mobile; one web app for the three web surfaces
Payment rail	Card via Stripe, payouts via Stripe Connect	As planned	Live one-euro end-to-end test completed by the owner
Calendar	6 weeks	7 weeks	Week 7: store review and hypercare preparation

1.1 What this pack is for

It is the handover. A new engineer can build and deploy from section 8, section 10 and Appendix D; a tester can re-run section 16 without the author; the owner can operate the product with section 14 and section 18; a future team can find the reason for every design choice in section 20 and the ADRs in section 8.4. It is also the baseline: change requests are raised against version 1.0 of this document.

1.2 Open items at baseline

- **DEC-014 (owner)**. Whether the venue is paid for a seat left inside the free-cancellation window. Behaviour is coherent (section 12.3) but the venue terms do not state it.
- **R-04**. A single-writer API is the accepted v1 trade-off (ADR-001); the scaling path is documented and not yet exercised.
- **D-02**. VAT registration for the booking fee must be filed before the first paid booking.

2. Business context, objectives and measures

2.1 The problem

Amateur football in Spanish towns runs on group chats. One organiser books a pitch, collects money by hand, and cancels on the day when three people drop out. Two groups are excluded by that model: the player who has nobody to organise with, and the venue that has hours nobody is organising for. Existing apps assume the group already exists; they book courts for teams, not seats for individuals.

2.2 Objectives

Table 4. Objectives

ID	OBJECTIVE	OWNER	HOW WE WILL KNOW
OBJ-1	A player with no team can find and pay for one seat in a real game tonight, and turn up without organising anything	Product owner	KPI-1, KPI-2, KPI-5
OBJ-2	A venue can sell unsold hours through the app and run its whole day from one diary, without a second system	Product owner	KPI-3, KPI-4
OBJ-3	Money is handled so that nobody carries the cost of an empty pitch: automatic refunds, weekly payouts, a fee shown before payment	Product owner	KPI-6, zero manual refunds
OBJ-4	The product is operable by one person: every rule is enforced by the system, every action is logged, every deadline runs unattended	Goudplevier	NFR-020 to NFR-024; section 14

2.3 Key performance indicators

Each KPI has one definition, one source and one owner so that two people asking the same question get the same number. Targets are for the first ninety days in one province and are illustrative.

Table 5. KPI definitions

ID	KPI	DEFINITION (FORMULA)	SOURCE	BASELINE	TARGET (DAY 90)
KPI-1	Fill rate	Games reaching their minimum / games published, per week	Games (status at deadline)	n/a	at least 70%
KPI-2	Solo share	Bookings by players with no prior game with any co-player / all bookings	Bookings x lineups	n/a	at least 40%
KPI-3	Venue occupancy	Hours sold (all sources) / hours open, past days only, per venue per week	Reservations, availability rules	Venue-reported	+15% vs venue baseline
KPI-4	Diary capture	Phone and counter bookings entered in the diary / all non-app bookings (venue self-report)	Reservations by source	0%	at least 80%
KPI-5	Repeat rate	Players with a second booking within 30 days / players with a first booking	Bookings	n/a	at least 45%
KPI-6	Refund automation	Refunds issued by the system / all refunds	Ledger	n/a	100%
KPI-7	Payout accuracy	Monday batches equal to the sum of statement lines / batches	Payouts vs statements	n/a	100%

2.4 Stakeholders and personas

Table 6. Stakeholders

STAKEHOLDER	INTEREST	INVOLVEMENT IN THE ENGAGEMENT
Product owner	Launch in one province; a product one person can run	Weekly review; decisions DEC-001 to DEC-014; UAT sign-off
Launch venues (three, illustrative)	Sell hours without a second system; be paid weekly	Two discovery sessions; walkthrough of La Mesa in week 5; UAT of the diary
Players (pilot group of ~40)	Find a game tonight; not be out of pocket	Usability sessions on the booking flow in weeks 3 and 5
Payment provider	Compliant onboarding of venues; verified accounts	Test and live keys; Connect onboarding; webhook endpoints
App stores	Policy compliance	Review in week 6 to 7; sign-in-with-Apple requirement met
Accountant	VAT treatment of the booking fee	Confirmed intermediary model (DEC-006); registration D-02

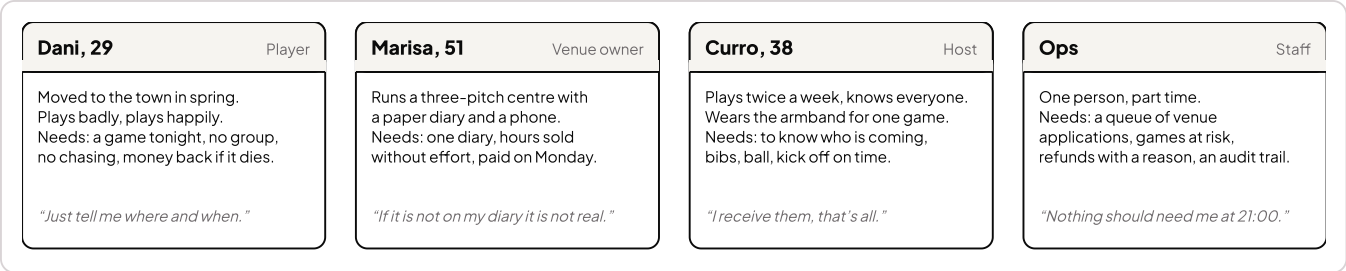


Figure 1. The four personas the requirements are written for. Names and details are illustrative.

2.5 RACI

Table 7. RACI for the engagement

ACTIVITY	PRODUCT OWNER	GOUDPLEVIER	VENUES	PROVIDER
Objectives and KPIs	A	R	C	-
Requirements and stories	A	R	C	-
Architecture and data model	I	A/R	-	C
Build and deploy	I	A/R	-	-
Payments configuration	A	R	I	C
Test execution	C	R	C	-
UAT sign-off	A/R	C	C	-
Go-live decision	A	R	I	-

3. Scope, assumptions, constraints and dependencies

3.1 In scope for v1

Table 8. Scope by capability

AREA	INCLUDED	REQUIREMENTS
Discover and book	Game list by city and location, game page with lineup, one-seat booking, waitlist with timed claim	FR-001 to FR-008
Payments	Card payments, credit balance, automatic refunds, fee shown before paying, weekly payouts to venues, statements	FR-009 to FR-016
Game lifecycle	Publish, confirm-or-cancel at deadline, complete, MVP ballot, match chat	FR-017 to FR-022
Host (armband)	Apply, venue approval, invitation per game, attendance	FR-023 to FR-026
Venue console (La Mesa)	Setup in five steps; diary with app, phone, counter and weekly-club bookings; close a pitch; till and payouts; roles	FR-027 to FR-036
Storefront	Public page per venue; rent the whole pitch by the hour; calendar feed; printable poster	FR-037 to FR-039
Staff console	Venue applications queue, games at risk, refunds, member actions, audit log	FR-040 to FR-043
Identity and notifications	Email + password, Google, Apple; phone verified at first booking; age gate; email, SMS, push	FR-044 to FR-046

Out of scope for v1

- A distinct venue-owner role separate from the organiser (DEC-004: collapsed for v1)
- Under-16 players and guardian consent (DEC-003)
- Cash for a seat, deposits, holds until confirmed in production (DEC-011)
- Promo codes, loyalty, dynamic pricing beyond rate bands and a lighting surcharge
- Multi-venue dashboards; invoicing to customers; point-of-sale hardware
- Markets outside Spain; currencies other than euro

Definition of a scoped feature

A feature is in scope when all three exist: a written rule (section 5 or section 12), a screen on every surface it applies to (section 15), and a test case that proves it (section 16). Anything short of all three is a backlog item (section 21), not a partial delivery.

3.2 Assumptions

Table 9. Assumptions

ID	ASSUMPTION	IF WRONG
A-01	Launch venues accept card-only online payment and cash only at their own counter	Re-open DEC-011; cash-for-seat would need a collection step and a no-show policy
A-02	One province at launch; Spanish and English are sufficient	Additional locales are configuration, not code, but copy review is a cost
A-03	Venues can supply opening hours and a board price per pitch in their first session	Setup stalls at step 2 of 5; the next-step card in Diary is the mitigation
A-04	The provider approves venue payout accounts within its stated review time	Payouts held; pending amounts visible in Caja; no player impact
A-05	Peak load in the first ninety days stays under 50 concurrent users	ADR-001 scaling path; NFR-010 headroom

3.3 Constraints

Table 10. Constraints

ID	CONSTRAINT	EFFECT ON DESIGN
C-01	Fixed six-week window; one analyst-developer	Core loop first; host, storefront and staff console in weeks 4 to 6
C-02	Apple requires Sign in with Apple when other social sign-in is offered	Apple ID token verification in v1 (FR-044)
C-03	Spanish consumer law: 14-day withdrawal does not apply to dated leisure services, but terms must say so	Refund rules stated at checkout and in terms (section 12.3)
C-04	Receiving and redistributing third-party funds is a regulated payment service in Spain	Payout rail with connected accounts (ADR-003); money is never held by Haypartido
C-05	GDPR and LOPDGDD; players 16+	Data map and retention (section 13.4); age gate at signup and booking

3.4 Dependencies

Table 11. Dependencies

ID	DEPENDENCY	NEEDED BY	STATUS AT BASELINE
D-01	Provider live keys and Connect approval for the platform account	Week 5	Done
D-02	VAT registration for the booking fee (accountant)	First paid booking	Open: owner
D-03	Apple developer account, Sign in with Apple service ID; Google OAuth clients (web, iOS, Android)	Week 4	Done
D-04	SMS sender registration for Spain	Week 5	Done
D-05	Domain, DNS and email authentication records (SPF, DKIM, DMARC)	Week 2	Done
D-06	Venue terms (Condiciones para Campos) reviewed by a lawyer	Week 5	Done; DEC-014 pending

4. Business processes

4.1 As-is: the group chat

The current process was observed in two football groups and confirmed with the launch venues. One organiser books a pitch by phone, posts in the group, counts replies, collects money by hand on the day or by Bizum, and cancels when the count falls short. The venue learns of the cancellation when nobody turns up.

Table 12. As-is pain points and their to-be answer

#	PAIN POINT	WHO BEARS IT	TO-BE ANSWER	REQUIREMENT
1	No way to join without knowing the organiser	Player with no team	Public games, one seat at a time	FR-001, FR-004
2	Money collected by hand; the organiser is out of pocket when people drop out	Organiser	Every online seat paid online at booking; automatic refunds	FR-009, FR-013
3	Cancellation on the day; the venue keeps an empty pitch	Venue	Confirm-or-cancel six hours before kickoff; the venue sees status in the diary	FR-018, FR-029
4	Phone bookings written on paper; double bookings	Venue	One diary for every source; overlaps refused by the system	FR-029, FR-030
5	Nobody knows who is coming	Organiser, venue	Lineup on the game page; roster in the console; attendance	FR-005, FR-026

4.2 To-be: sell a seat

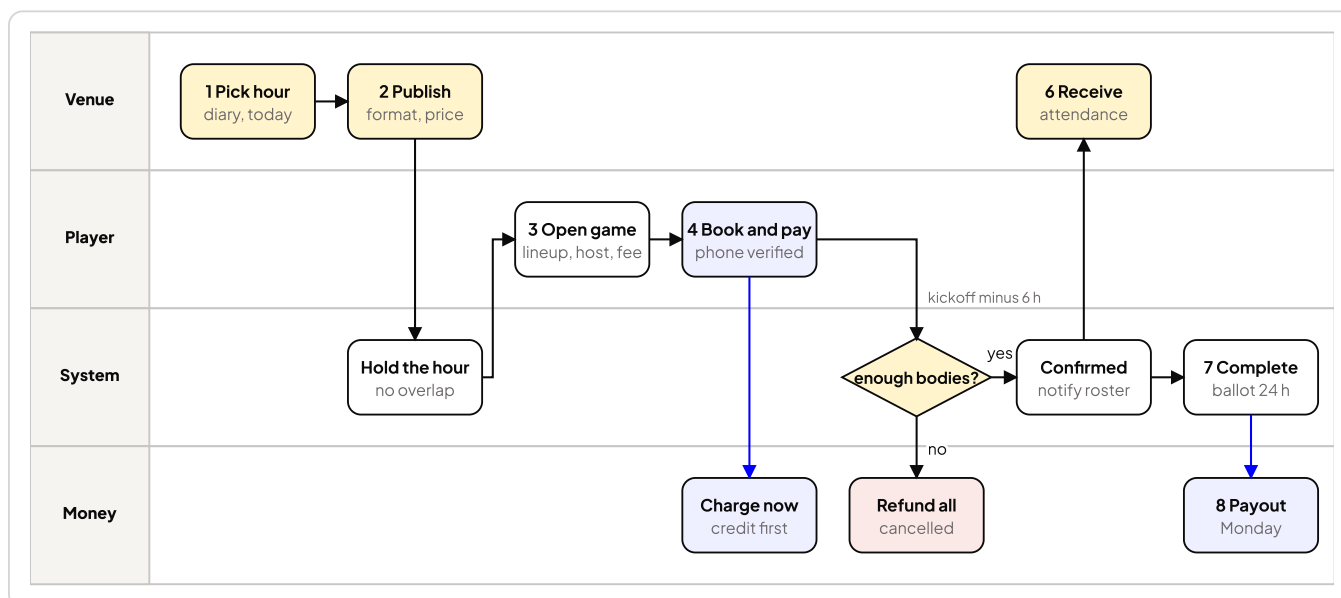


Figure 2. To-be process “Sell a seat”, from a free hour to a paid seat and a Monday payout. Gold tasks are performed by the venue; blue tasks move money; diamonds are decisions the system takes.

Table 13. Process steps for Figure 2

STEP	ACTOR	TASK	RULE / SYSTEM BEHAVIOUR	REQUIREMENT
1	Venue	Open the diary and pick a free hour	Free hours derive from availability rules minus reservations and exceptions	FR-028
2	Venue	Publish a game (format, price per seat)	A reservation holds the hour; overlaps are refused; the game is listed within a minute	FR-027, FR-030
3	Player	Find the game and open it	List sorted by kickoff; game page shows lineup, host, price, fee	FR-001, FR-004
4	Player	Book and pay	Phone verified once; quote = seat + fee; credit first, card for the rest; charged now	FR-006, FR-009, FR-010
5	System	Decide at the deadline	Six hours before kickoff: bodies at least the minimum, then confirmed; otherwise cancelled and every seat refunded	FR-018, FR-013
6	Host	Receive players, take attendance	Attendance marks feed reliability; a hostless game still runs	FR-025, FR-026
7	System	Complete the game; open MVP ballot	Kickoff + duration; ballot closes 24 h later	FR-020, FR-021
8	System	Monday payout	Seat prices and rented hours transferred to the venue; fee kept; statement per game	FR-015, FR-016

4.3 To-be: venue onboarding

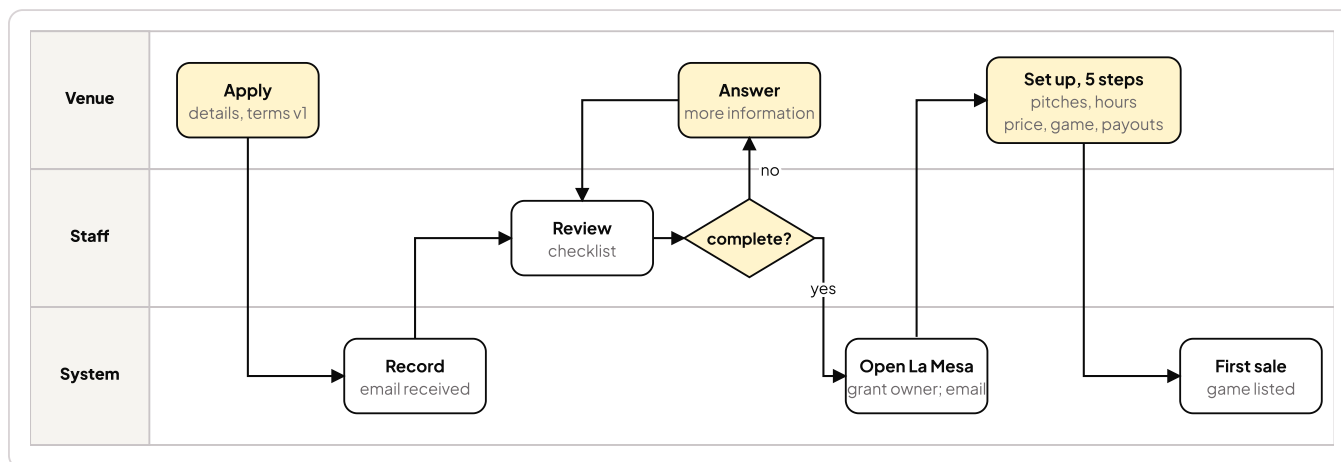


Figure 3. To-be process “Venue onboarding”, from application to first sale. The setup steps are the five the console tracks; the approval checklist is the staff console’s.

4.4 Cancellation and refund decision table

Every cancellation path resolves through one decision table. The engine implements it as a single function; section 16 tests each row.

Table 14. Decision table: who cancels, when, what happens

ROW	WHO	WHEN	SEAT PRICE	FEE	VENUE PAID?	EMAIL
DT-1	Player	> 24 h before kickoff	Refund to card (credit part to credit)	Refund	No (seat re-sold)	Refund issued
DT-2	Player	at most 24 h before kickoff	Credit, valid 12 months	Kept	Pending DEC-014	Credit issued
DT-3	System	Deadline, minimum not reached	Refund to card, all seats	Refund	No	Game cancelled + refund
DT-4	Venue	Any time before kickoff	Refund to card, all seats	Refund	No	Game cancelled + refund
DT-5	Staff	Any time	Refund to card, all seats; optional goodwill credit	Refund	No	Game cancelled + refund
DT-6	Renter	Outside venue window	Refund to card	Refund	No	Refund issued
DT-7	Renter	Inside venue window	Nothing	Kept	Pending DEC-014	None (stated before confirming)

5. Functional requirements

Requirements are written as testable statements. Each carries a priority, a rationale and the objective it serves; the stories that implement it and the tests that prove it are in Appendix B. “System” means the domain engine unless a surface is named.

5.1 Discover and book

Table 15. Functional requirements: Discover and book

ID	PRI	REQUIREMENT	OBJECTIVE
FR-001	Must	The system shall list published and confirmed games with a kickoff in the future, sorted by kickoff, filterable by city, format and date, and by distance when the player shares a location.	OBJ-1
FR-002	Must	Each listed game shall show venue, kickoff, format, price per seat, seats taken over capacity, and a status of open, last seats (2 or fewer left), full or confirmed.	OBJ-1
FR-003	Should	The list shall show games in the player's favourite venues first when no location is shared.	OBJ-1
FR-004	Must	The game page shall show the lineup as a pitch drawing with each booked player's avatar and shirt number, the host marked, open seats marked, kickoff, duration, surface, price, fee and total.	OBJ-1
FR-005	Must	The game page shall show the match chat entry once the viewer holds a confirmed booking, and never before.	OBJ-1
FR-006	Must	The system shall allow a signed-in player aged 16 or over with a verified phone to book exactly one seat per game; a second booking attempt shall be refused with reason booking.duplicate.	OBJ-1, OBJ-3
FR-007	Must	When a game is full, the system shall offer a waitlist; when a seat frees, the first entry shall receive an offer valid for 10 minutes, charged only on claim; an unclaimed offer passes to the next entry.	OBJ-1
FR-008	Must	A player shall be able to leave a game from the schedule; the outcome shall follow the decision table in section 4.4 and be stated on the confirmation sheet before the player confirms.	OBJ-3

5.2 Payments

Table 16. Functional requirements: Payments

ID	PRI	REQUIREMENT	OBJECTIVE
FR-009	Must	The quote for a seat shall be seat price + fee, where fee = 5% of the seat price clamped to €1–€6, VAT included in the fee; the quote shall be shown before any payment step.	OBJ-3
FR-010	Must	Credit shall be applied before the card; a card charge shall never be between €0.01 and €0.49; a seat fully covered by credit shall complete without a card step.	OBJ-3
FR-011	Must	Card payments shall be charged at booking (not authorised and captured later) via the payment provider; the booking shall become confirmed only after the provider confirms the charge.	OBJ-3
FR-012	Must	Booking creation shall be idempotent per player and game; a repeated request with the same idempotency key shall return the original booking and charge nothing.	OBJ-3, OBJ-4
FR-013	Must	Refunds shall be issued by the system without staff action in every row of section 4.4 marked refund, returning each part to where it came from (card to card, credit to credit).	OBJ-3, OBJ-4
FR-014	Must	The system shall write a ledger entry for every charge, refund, credit grant and payout with amount, counterparty, reference and reason.	OBJ-3, OBJ-4
FR-015	Must	Every Monday at 08:00 UTC the system shall transfer to each venue the sum of seat prices of completed games and rented hours since the previous batch, excluding fees and refunded or credited seats, and record a payout with a statement per game.	OBJ-2, OBJ-3
FR-016	Must	A venue owner shall be able to activate payouts by completing the provider's onboarding; until then pending amounts shall be shown as held and no transfer attempted.	OBJ-2

5.3 Game lifecycle

Table 17. Functional requirements: Game lifecycle

ID	PRI	REQUIREMENT	OBJECTIVE
FR-017	Must	A game shall have exactly one of the states draft, published, confirmed, cancelled, completed, with the transitions in Figure 12 and no others.	OBJ-4
FR-018	Must	Six hours before kickoff the system shall confirm a published game whose count of people on the pitch is at least the format minimum, and otherwise cancel it and apply DT-3.	OBJ-1, OBJ-3
FR-019	Must	The count of people on the pitch shall include booked players and a playing host with a free seat, and exclude a non-playing host, staff placeholders and the venue.	OBJ-1
FR-020	Must	At kickoff plus duration the system shall mark a confirmed game completed and, when at least two players attended, open an MVP ballot to the roster for 24 hours.	OBJ-1
FR-021	Should	At ballot close the system shall count votes, record the winner on the player profile and notify the roster; ties shall record all tied players.	OBJ-1
FR-022	Must	Each game shall have a chat channel open to confirmed players from booking until 24 hours after kickoff; system notices (host changes, cancellation) shall post to it.	OBJ-1

5.4 Host

Table 18. Functional requirements: Host

ID	PRI	REQUIREMENT	OBJECTIVE
FR-023	Must	A player shall be able to apply to host at a venue; the venue owner shall approve or reject from the console; approved hosts form the venue's pool.	OBJ-1, OBJ-2
FR-024	Must	For each game the venue shall be able to invite one pool host; acceptance shall assign the armband and, when the host plays, a free seat counted in FR-019.	OBJ-1
FR-025	Must	Four hours before kickoff, a game without an accepted host shall proceed hostless, post a notice to the chat and release any held host seat to the waitlist.	OBJ-1, OBJ-4
FR-026	Should	The host or venue shall be able to mark attendance per player from kickoff; marks shall update the player's reliability record.	OBJ-2

5.5 Venue console (La Mesa)

Table 19. Functional requirements: Venue console (La Mesa)

ID	PRI	REQUIREMENT	OBJECTIVE
FR-027	Must	A venue owner shall be able to publish a game from a free hour with format, price and duration prefilled from the pitch; the hour shall be reserved on publish.	OBJ-2
FR-028	Must	The diary shall show, per pitch and day, every reservation from every source (app game, phone, counter, weekly club, online rental) with a distinct colour per source and free hours derived from availability rules and exceptions.	OBJ-2
FR-029	Must	The console shall accept phone and counter bookings with start, end, source, note and price, and weekly clubs with weekday, time, duration and season end; weekly clubs shall materialise a fortnight ahead daily.	OBJ-2
FR-030	Must	The system shall refuse any reservation that overlaps another on the same pitch, treating intervals as half-open, including across a split pitch and its halves.	OBJ-2, OBJ-4
FR-031	Must	A venue owner shall be able to close a pitch for the rest of a day; every affected game shall be cancelled with DT-4, renters refunded with DT-6, and the hours shown closed.	OBJ-2, OBJ-3
FR-032	Must	The till (Caja) shall show pending payout, last payout, counter takings and a statement per game; pending shall equal the amount FR-015 would transfer if run now.	OBJ-2, OBJ-3
FR-033	Must	Roles shall be owner, co-manager, observer and counter; only the owner shall access Caja, keys and account; the counter role shall be limited to today's diary and charging behind a four-digit PIN.	OBJ-2, OBJ-4
FR-034	Must	The console shall track five setup steps (pitches, hours, price, first game, payouts) and show the next step on the diary until all are complete.	OBJ-2
FR-035	Should	The console shall support a split pitch: a parent pitch with two child pitches; booking the parent blocks both children and vice versa.	OBJ-2
FR-036	Should	The console shall support prices as a board rate per hour, bands by weekday and time, a lighting surcharge after a set time, and a per-customer agreed rate.	OBJ-2

5.6 Storefront

Table 20. Functional requirements: Storefront

ID	PRI	REQUIREMENT	OBJECTIVE
FR-037	Must	Each venue shall have a public page listing its upcoming games and, when hours and prices exist, free hours available to rent.	OBJ-2
FR-038	Must	A signed-in player with a verified phone shall be able to rent a free hour for the whole price plus fee, charged at booking; the hour shall appear on the diary as an online rental.	OBJ-2, OBJ-3
FR-039	Could	The venue page shall offer a calendar feed (iCal) and a printable poster with a QR code to the page.	OBJ-2

5.7 Staff console

Table 21. Functional requirements: Staff console

ID	PRI	REQUIREMENT	OBJECTIVE
FR-040	Must	Staff shall be able to approve, request more information from, or reject venue applications against a checklist; each decision shall email the applicant.	OBJ-2, OBJ-4
FR-041	Must	Staff shall see games at risk (published, under minimum, inside 72 hours) and be able to cancel with refunds (DT-5).	OBJ-4
FR-042	Must	Staff shall be able to issue a goodwill credit to a player with a reason; the action shall be logged and shown on the player's payment history.	OBJ-3, OBJ-4
FR-043	Must	Every staff and venue action that changes state shall be written to an audit log with actor, action, entity, before/after summary and time; the venue log shall be readable by the venue owner.	OBJ-4

5.8 Identity and notifications

Table 22. Functional requirements: Identity and notifications

ID	PRI	REQUIREMENT	OBJECTIVE
FR-044	Must	Players and venue staff shall sign in with email and password, Google or Apple; social sign-in shall create the account when none exists; there shall be no SMS sign-in.	OBJ-1, OBJ-4
FR-045	Must	The system shall require a verified phone before the first booking or rental, verified by a 4-digit SMS code with at most 3 codes per 15 minutes and 5 attempts per code.	OBJ-3, OBJ-4
FR-046	Must	The system shall send the notifications in Appendix C by email, push and in-app in the account's language; SMS shall be used only for the phone code.	OBJ-1, OBJ-2

6. User stories and acceptance criteria

Sixty-one stories were written against the requirements in section 5, estimated in points and delivered in four sprints of a week and a half. The story map below shows the epics and counts; eight stories follow in full as the reference for how the rest are written: one persona, one want, one reason, acceptance criteria in Given/When/Then that a test can execute, and a trace line.

Table 23. Story map (illustrative counts)

EPIC	STORIES	POINTS	SPRINT	REQUIREMENTS
E1 Find and book a seat	9	34	1	FR-001 to FR-008
E2 Pay, refund, credit	8	41	1 to 2	FR-009 to FR-014
E3 Game lifecycle and chat	7	29	2	FR-017 to FR-022
E4 Host and armband	5	18	3	FR-023 to FR-026
E5 La Mesa: diary and bookings	12	55	2 to 3	FR-027 to FR-031, FR-034 to FR-036
E6 La Mesa: till and payouts	6	27	3	FR-015, FR-016, FR-032, FR-033
E7 Storefront	4	14	4	FR-037 to FR-039
E8 Staff console	5	19	4	FR-040 to FR-043
E9 Identity and notifications	5	22	1, 4	FR-044 to FR-046
Total	61	259		

US-004 **MUST** E1 FIND AND BOOK

5 PTS

Book one seat in a game

As a **player with a verified phone**, I want to **book one seat in a published game and pay for it in the same step**, so that I have a place tonight without organising anything.

1. **Given** a published game with at least one open seat and my phone verified, **when** I confirm the quote and pay, **then** a booking exists in state confirmed, the seat count increases by one, and I receive "Booking confirmed" by email and push.
2. **Given** I already hold a booking in this game, **when** I try to book again, **then** the request is refused with booking.duplicate and nothing is charged.
3. **Given** the last open seat is taken between my quote and my payment, **when** I pay, **then** the charge is not made, I am told the game is full and offered the waitlist.

Traces to FR-006, FR-011, FR-012, TC-011, TC-012, TC-014

US-007 **MUST** E1 FIND AND BOOK

5 PTS

Waitlist with a timed claim

As a **player who found a full game**, I want to **join a waitlist and be offered the next seat that frees**, so that I do not have to keep checking.

1. **Given** a full game, **when** I join the waitlist, **then** I hold position n and nothing is charged.
2. **Given** I am first and a seat frees, **when** the seat frees, **then** I receive an offer valid 10 minutes by push and email with a claim button.
3. **Given** an offer I do not claim within 10 minutes, **when** the window closes, **then** the offer passes to the next entry and I am told.

Traces to FR-007, TC-016, TC-017

US-012 **MUST** E2 PAY, REFUND, CREDIT

8 PTS

Automatic refund when a game does not fill

As a **player who paid for a seat**, I want **my money back automatically if the game does not reach its minimum**, so that turning up alone never costs me anything.

1. **Given** a game with minimum 8 and 7 people on the pitch at the deadline, **when** the deadline passes, **then** the game is cancelled, every seat is refunded in full to its source, and every player receives "Game cancelled" with the refund amount within 5 minutes.
2. **Given** a refunded booking, **when** I open my schedule, **then** the game shows as cancelled with the refund amount and date and no longer appears under upcoming.
3. **Given** a seat paid partly with credit, **when** it is refunded, **then** the credit part returns to credit and the card part to the card, with two ledger entries.

Traces to FR-013, FR-014, FR-018, TC-021, TC-022, TC-023

US-015 **MUST** E2 PAY, REFUND, CREDIT

5 PTS

Leave a game inside 24 hours

As a **player who cannot make it**, I want to **leave a game late and keep the value of my seat as credit**, so that the venue is not left with a hole and I am not left with nothing.

1. **Given** a booking with kickoff in 23 h 59 min, **when** I leave, **then** the seat price becomes credit valid 12 months, the fee is kept, the card is untouched, and the seat is released.
2. **Given** the same booking with kickoff in 24 h 01 min, **when** I leave, **then** the seat price and fee are refunded to the card in full.
3. **Given** the confirmation sheet, **when** I open it, **then** it states the outcome for my case before I confirm.

Traces to FR-008, section 4.4 DT-1/DT-2, TC-024, TC-025

US-031 **MUST** E5 DIARY AND BOOKINGS

8 PTS

One diary, every source

As a **venue owner**, I want **every booking from the app, the phone, the counter and my weekly clubs on one diary**, so that I never double-book and never keep two systems.

1. **Given** a reservation 18:00 to 19:00 on Pitch 2, **when** I enter a phone booking 18:30 to 19:30 on Pitch 2, **then** it is refused with the reason and nothing is written.
2. **Given** a weekly club on Mondays 20:00 for 90 minutes, **when** a day passes, **then** the next fourteen days of that club exist on the diary with the club's name.
3. **Given** the week view, **when** I look at it, **then** app games, phone and counter bookings and weekly clubs are distinguishable by colour and a legend.

Traces to FR-028, FR-029, FR-030, TC-041 to TC-045

US-036 **MUST** E5 DIARY AND BOOKINGS

5 PTS

Close the pitch for rain

As a **venue owner**, I want **to close a pitch for the rest of the day in one action**, so that everyone is told and refunded without me phoning.

1. **Given** two games and one rental today on Pitch 1, **when** I close Pitch 1 for today, **then** both games are cancelled with every seat refunded, the renter is refunded, all affected people receive an email, and the hours show closed.
2. **Given** a closed day, **when** I reopen it, **then** only free hours reopen; cancelled games are not restored.
3. **Given** the action, **when** it completes, **then** the venue log records who closed which pitch and when.

Traces to FR-031, FR-043, TC-046, TC-047

US-041 **MUST** E6 TILL AND PAYOUTS

8 PTS

Pending payout that adds up

As a **venue owner**, I want **the till to show exactly what next Monday will transfer**, so that I can reconcile it against my own diary.

1. **Given** seven paid seats, one late leave and one refund since the last batch, **when** I open the till, **then** pending equals six seat prices, and the statement lists six lines.
2. **Given** Monday 08:00 UTC passes, **when** the batch runs, **then** pending is zero, a payout with the same amount exists, and I receive "Payout sent".
3. **Given** payouts not activated, **when** I open the till, **then** pending is shown as held and the activation step is first on the page.

Traces to FR-015, FR-016, FR-032, TC-051 to TC-054

US-055 **MUST** E9 IDENTITY

5 PTS

One account, three ways in

As a **new player**, I want **to sign up with email and password, Google or Apple**, so that I am in within a minute and never asked for a code at the door.

1. **Given** a Google ID token for an email with no account, **when** I sign in with Google, **then** an account is created, I am asked for name and date of birth, and I land on the game list.
2. **Given** an email that already has a password account, **when** I sign in with Apple using the same email, **then** I am signed into that account, not a duplicate.
3. **Given** a date of birth under 16, **when** I submit it, **then** signup is refused with the age rule and no account is created.

Traces to FR-044, C-05, TC-081 to TC-084

7. Non-functional requirements

Each requirement has a measurable target and the method used to verify it. Targets are for the launch scale (A-05) and are illustrative.

Table 24. Non-functional requirements

ID	AREA	REQUIREMENT AND TARGET	VERIFICATION
NFR-001	Performance	p95 response time at most 300 ms for the game list and game page at 50 concurrent users; at most 150 ms for authenticated reads	Load test in the QA harness (TC-101); production monitoring
NFR-002	Performance	A published game appears in the list within 60 s on every surface	TC-102

ID	AREA	REQUIREMENT AND TARGET	VERIFICATION
NFR-003	Availability	99.5% monthly for the API and web outside announced maintenance; automatic restart with state restore (ADR-001)	Uptime monitor; restart drill (TC-103)
NFR-004	Durability	No accepted booking or payment lost; world state persisted continuously and on shutdown; database backed up with point-in-time restore; restore drill quarterly	TC-103; restore drill record
NFR-005	Consistency	No two reservations overlap on one pitch, under concurrency	TC-045 (three-way race); database exclusion constraint as a second line
NFR-006	Security	Sessions in httpOnly cookies scoped per surface; no raw token in browser storage; TLS everywhere; HSTS, CSP, frame-ancestors none	Header scan (TC-091); code review
NFR-007	Security	Rate limits on sign-in, verification codes, code attempts and payment attempts, tuned per route and reviewed after launch	TC-092 to TC-094
NFR-008	Security	Access matrix enforced server-side for every route (section 13.2); IDOR attempts across 20 routes refused	TC-095
NFR-009	Privacy	Personal data limited to section 13.4; right to erasure completed within 72 h by a single action; no third-party analytics cookies	TC-096; DPIA note
NFR-010	Capacity	Headroom over launch load measured before the scaling path in ADR-001 is needed	Load test above launch load
NFR-011	Localisation	Every user-facing string in Spanish and English; account language drives screens, emails, push and SMS	i18n lint (zero hardcoded strings); TC-097
NFR-012	Accessibility	WCAG 2.1 AA contrast on both themes; 44 px touch targets; labels on every control; keyboard reachable on the web	Design lint; manual audit
NFR-013	Compatibility	iOS 16+, Android 10+, current and previous major versions of Chrome, Safari, Firefox, Edge	Device matrix (TC-098)
NFR-014	Time	All wall-clock rules in Europe/Madrid; DST transitions do not move a kickoff or fire a deadline twice	TC-099
NFR-015	Money	All amounts integer cents; every movement in the ledger; payout batch equals statements to the cent	TC-051 to TC-054
NFR-016	Auditability	Every state-changing action by staff or venue in the audit log within 1 s; log retained 24 months	TC-071
NFR-017	Observability	Structured request logs; error rate and payment-verification alerts to the operator within 5 minutes	section 14.4; alert test
NFR-018	Deployability	One command from a clean, pushed commit to production, including mobile update; rollback to the previous image in under 10 minutes	section 18.3; rollback drill
NFR-019	Maintainability	Domain rules in one package with no framework dependency; unit test coverage of the engine at least 85% lines	Coverage report
NFR-020	Operability	Deadlines, refunds, payouts and reminders run unattended; the operator has no scheduled manual task	section 14.1; 30-day unattended run in staging

8. Solution architecture

The architecture is deliberately small: one domain engine that owns every rule, thin clients that render it, and managed services underneath. It is described here at three levels (context, containers, deployment) followed by the decisions that shaped it. Names of cloud services are generic; the configuration reference in Appendix D lists what an operator needs.

8.1 System context

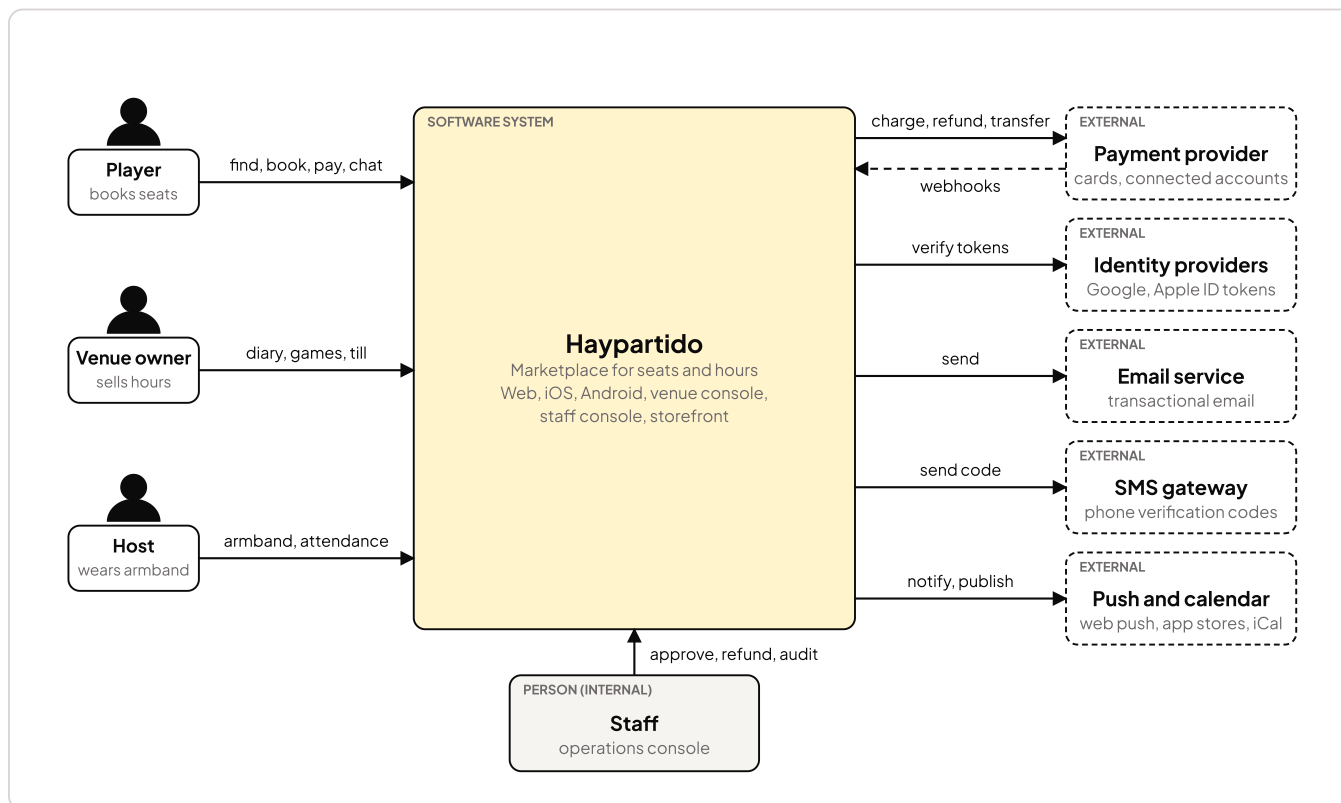


Figure 4. System context (C4 level 1). Four kinds of people use one system; five kinds of external service sit behind it. Webhooks are the only inbound external traffic.

8.2 Containers

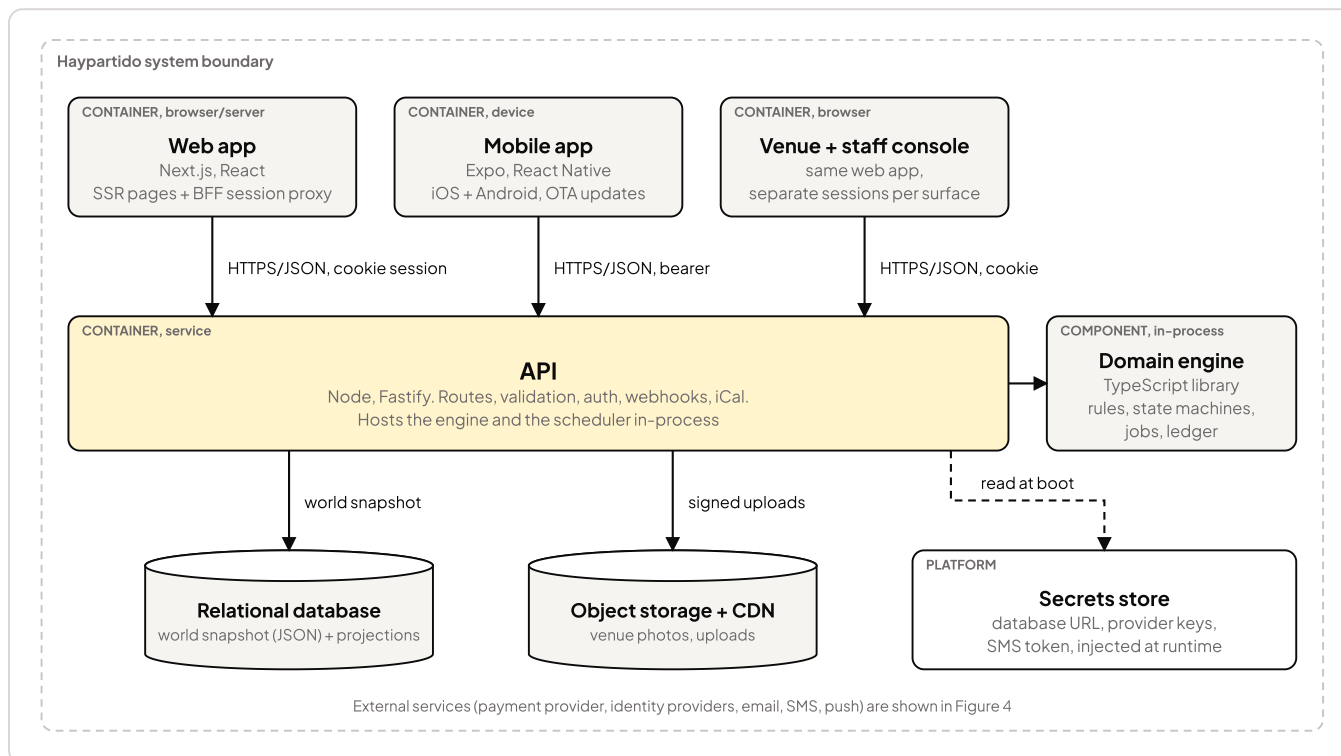


Figure 5. Container view (C4 level 2). The engine and the scheduler run inside the API process; the database holds a periodic snapshot of the whole world plus projection tables used for constraints and reporting.

Table 25. Container responsibilities and technology

CONTAINER	RESPONSIBILITY	TECHNOLOGY	NOTES
Web app	Player web, venue console, staff console, marketing pages, storefront; server-side rendering; BFF that keeps session tokens in httpOnly cookies	Next.js (App Router), React	Three surfaces, one session each; middleware handles locale, redirects, launch gate
Mobile app	Player journeys on iOS and Android; identical contract to the web	Expo, React Native, expo-router	JavaScript updates over the air; native builds only for native changes (ADR-004)
API	HTTP routes, input validation, authentication, provider webhooks, calendar feeds; hosts the engine	Node 22, Fastify, zod	~200 routes; typed bilingual domain errors
Domain engine	Every business rule: games, bookings, reservations, pricing, refunds, payouts, roles, audit, notifications; job handlers	TypeScript library, no framework dependency	Unit-tested in isolation with fakes for every port (ADR-006)
Scheduler	Ten job types drained by a frequent tick	In-process, persisted with the world	A dev clock offset allows time travel in tests
Relational database	World snapshot as one JSON document, persisted continuously and on shutdown; projection tables for reservations and pitches with an exclusion constraint	PostgreSQL 16	ADR-002
Object storage + CDN	Venue photos and uploads	Private bucket, CDN with origin access	Immutable cache headers

8.3 Deployment

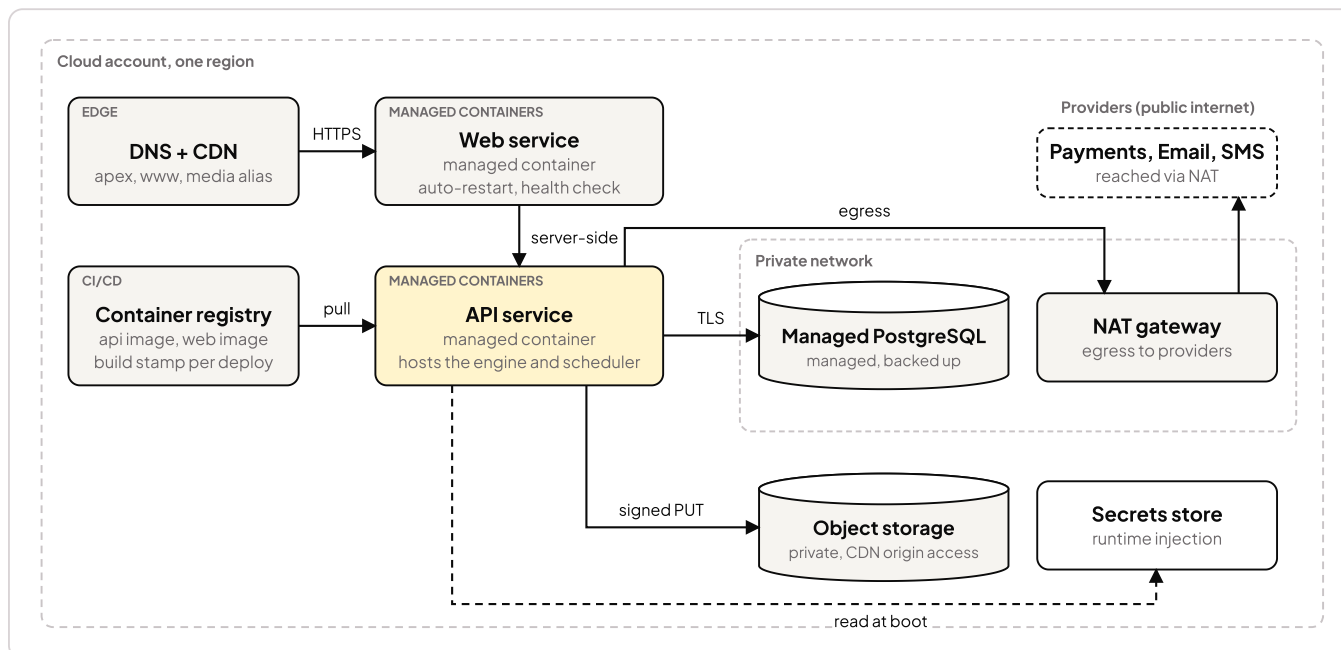


Figure 6. Deployment view. Two managed containers; the API hosts the engine and its scheduler (ADR-001). Providers are reached through a NAT gateway; secrets are injected at runtime and never appear in service descriptions.

Table 26. Environments

ENVIRONMENT	PURPOSE	PAYMENTS	SMS / EMAIL	DATA	ACCESS
Local development	Build and automated tests; the QA harness; time travel	Fake provider (never charged)	Code echoed; outbox endpoint	Seeded demo world, reset on demand	Developer
Production	The product	Live keys; connected accounts	Real delivery	Live; daily backups	Owner and staff; read-only smoke after each deploy
Staging (post-MVP, section 21)	Rehearse migrations and provider changes	Test keys	Sandbox	Copy of production, anonymised	Not in v1

8.4 Architecture decision records

Each decision is recorded with the options that were considered so that a future team can revisit it with the same information.

ADR-001 Single-process domain engine with an in-memory world and periodic snapshots

CONTEXT	A small launch (A-05) with strict consistency needs: no double bookings, exact money.
OPTIONS	- Conventional ORM over a relational schema with transactions per request - Event-sourced service with a message bus - In-memory world owned by one process, snapshotted to the database (chosen)
DECISION	One process holds the world; every rule runs in memory with no partial writes; the state is persisted at short intervals and on shutdown, and restored at boot.
CONSEQUENCES	Simplest possible correctness for money and overlaps; fastest to build and test. Costs: writes are serialised through one engine (NFR-010 headroom instead of horizontal scaling), and a crash can lose the interval since the last persist (mitigated by persist-on-signal and idempotent provider webhooks). Scaling path: extract reservations and bookings to relational tables behind the same engine interface.

ADR-002 PostgreSQL as snapshot store with projection tables and an exclusion constraint

CONTEXT	ADR-001 needs a durable, backed-up store and a second line of defence against overlapping reservations.
OPTIONS	• Object storage for snapshots only • Document database • PostgreSQL: one JSONB row for the world plus projection tables re-written on every save (chosen)
DECISION	The world is one JSONB document; reservations and pitches are projected into tables with a range exclusion constraint that rejects overlaps as a canary.
CONSEQUENCES	Managed backups and point-in-time restore; the constraint catches any engine bug before it becomes a double booking; the projections also serve reporting. Cost: a full projection rewrite per save, acceptable at launch volume.

ADR-003 Card payments and venue payouts through one provider with connected accounts

CONTEXT	Venues must be paid weekly (FR-015). Receiving and redistributing third-party funds is a regulated activity in Spain (C-04).
OPTIONS	• Domestic card rail with lower per-transaction cost, funds received by Haypartido and transferred on • A Spanish payment institution with a split-marketplace product • A global provider with connected accounts and transfers (chosen)
DECISION	Cards are charged into the platform account; venues onboard as connected accounts; Monday transfers move seat prices and rental prices to the venue; the money is never Haypartido's.
CONSEQUENCES	No payment-institution licence needed; onboarding, KYC and disputes handled by the provider; refunds to card automatic. Cost: a higher fixed fee per small ticket. The payments port (ADR-006) keeps a later switch to an adapter.

ADR-004 One React Native codebase with over-the-air updates for JavaScript changes

CONTEXT	Two mobile platforms and a web app must stay in sync (DEC-002) with one developer.
OPTIONS	• Native iOS and Android apps • Web-only with a progressive web app on phones • Expo with expo-router and OTA updates (chosen)
DECISION	Mobile is built once; JavaScript-only changes reach installed apps at next launch; native changes require a store build and a new runtime version.
CONSEQUENCES	Weekly delivery to phones without store review for most changes; one contract shared with the web. Cost: native modules limited to the Expo ecosystem; store review still gates native changes.

ADR-005 One web application, three surfaces, sessions scoped per surface

CONTEXT	Players, venue staff and operations staff need different rooms with different keys but share one identity (DEC-008).
OPTIONS	• Separate web apps per audience • One app with one session and role checks in the UI • One app, three surfaces, each with its own httpOnly session cookie and server-side authorisation (chosen)
DECISION	Signing into the venue console does not sign you into the staff console; the server checks the surface and the grants on every request; the browser never holds a raw token.
CONSEQUENCES	One codebase, one design system, one deploy; a compromised player session does not reach venue money. Cost: three session cookies to reason about in middleware.

ADR-006 Every external dependency behind a port with a fake

CONTEXT	The whole product must be testable without spending money or sending messages (NFR-020; section 16).
OPTIONS	• Mock the provider SDKs in tests • Ports with in-memory fakes chosen at boot by configuration (chosen)
DECISION	Payments, payouts, email, SMS, push, media and the clock are interfaces; the API selects the real adapter when its configuration is present and the fake otherwise.
CONSEQUENCES	The QA harness runs the full money model with time travel and an outbox as the oracle; production-mode tests assert the fakes are unreachable. Cost: adapters must be kept behaviourally faithful (webhook shapes, error codes).

9. Data model and data dictionary

Thirteen entities carry the product. The three highlighted ones: Game, Booking and Reservation: are where money and overlaps live, and the ones the constraints in section 9.3 protect. Attribute types are logical; the engine stores the world as documents (ADR-001) and projects Reservation and Pitch into relational tables (ADR-002).

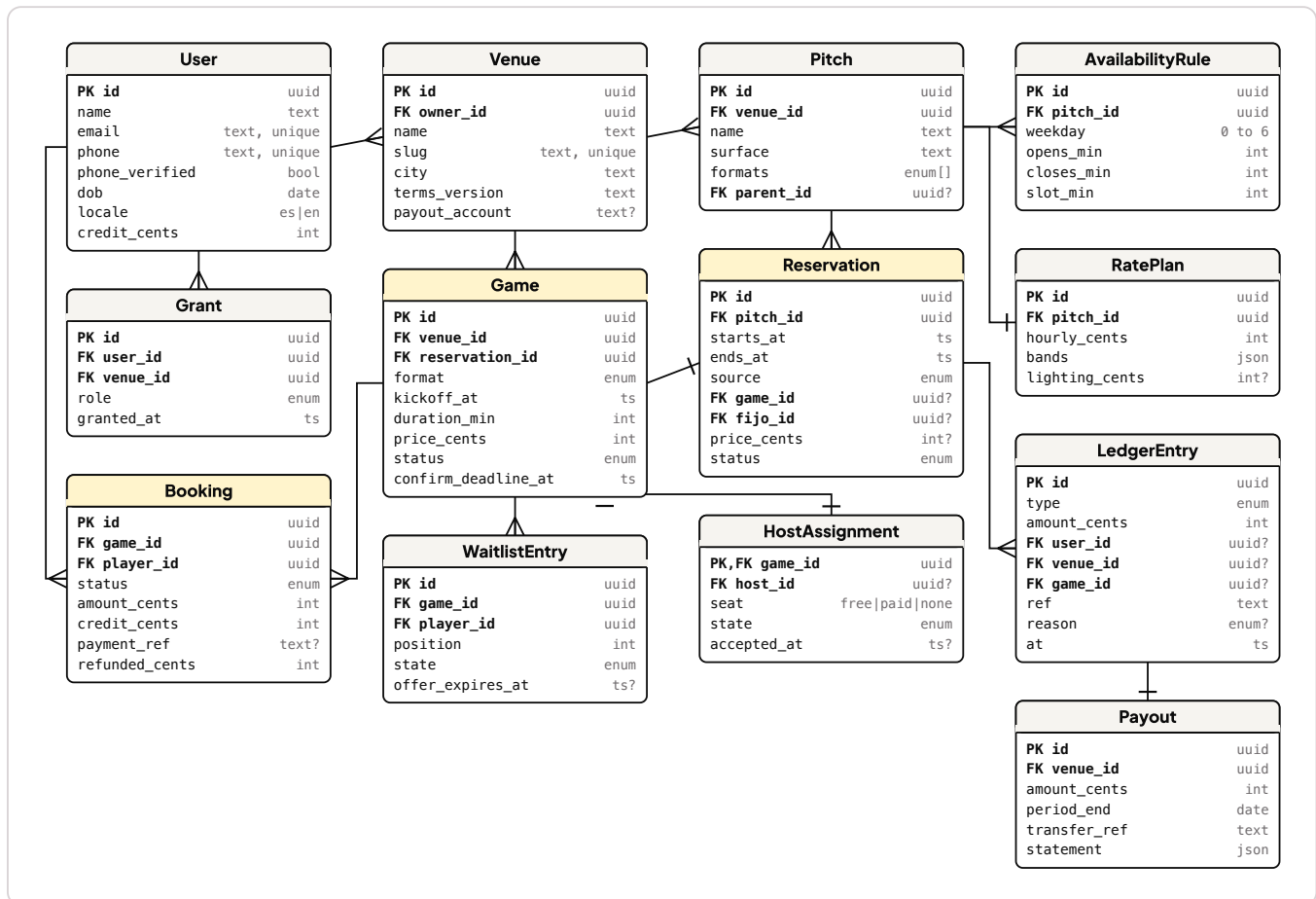


Figure 7. Entity to relationship diagram of the core model (crow's-foot notation). Highlighted entities are the money-bearing ones. Customer, weekly club (fiyo), notification, audit event and report entities are omitted for clarity and listed in Appendix B.

9.1 Data dictionary (selected entities)

Table 27. Data dictionary: Game

ATTRIBUTE	TYPE	CONSTRAINTS	NOTES
id	uuid	PK	
venue_id	uuid	FK Venue; not null	
reservation_id	uuid	FK Reservation; unique	The hour the game holds; created on publish
format	enum 5v5 7v7 8v8 11v11	not null	Capacity and minimum derive from format (Table 33)
kickoff_at	timestamp (UTC)	not null; > now at publish	Displayed in Europe/Madrid
duration_min	int	60 90	From the pitch's slot length
price_cents	int	at least 0	Seat price; fee computed at quote time (section 12.1)
status	enum draft published confirmed cancelled completed	not null	Transitions in Figure 12 only
confirm_deadline_at	timestamp	= kickoff_at minus 6 h	Job confirm_deadline scheduled for this instant
host_seat	enum free paid none	default none	Counted per FR-019

Table 28. Data dictionary: Booking

ATTRIBUTE	TYPE	CONSTRAINTS	NOTES
id	uuid	PK	
game_id, player_id	uuid, uuid	FK; unique together	One seat per player per game (FR-006)
status	enum pending confirmed cancelled	not null	pending only between charge request and provider confirmation
amount_cents	int	= seat + fee at booking time	Frozen; later price changes do not affect it
credit_cents	int	0 at most credit at most amount	Part paid from credit; refunded to credit
payment_ref	text	nullable	Provider intent id when a card was charged
refunded_cents	int	at most amount	Sum of refunds; reason on the ledger entry
idempotency_key	text	unique	From the client; replays return the original (FR-012)

Table 29. Data dictionary: Reservation

ATTRIBUTE	TYPE	CONSTRAINTS	NOTES
id	uuid	PK	
pitch_id	uuid	FK Pitch	A split pitch reserves parent and children (FR-035)
starts_at, ends_at	timestamp	ends > starts; half-open [starts, ends)	Exclusion constraint on (pitch_id, tstzrange) in the projection
source	enum app phone counter fijo rental	not null	Drives the diary colour and the payout treatment
game_id / fijo_id / rental_id	uuid	at most one non-null	What the hour is for
price_cents	int	nullable	Counter price or rental price; games carry price on Game
status	enum confirmed cancelled	not null	Cancelled reservations free the hour immediately

Table 30. Data dictionary: LedgerEntry

ATTRIBUTE	TYPE	CONSTRAINTS	NOTES
type	enum charge refund credit payout fee	not null	Every money movement, including internal credit grants
amount_cents	int	signed	Positive into the platform, negative out
user_id / venue_id / game_id	uuid	nullable	Counterparties
ref	text	not null	Provider id (intent, refund, transfer) or internal id
reason	enum	refund and credit only	game_cancelled, player_left, late_cancel, goodwill, venue_cancelled, rental_released

9.2 Reference values

Table 31. Formats: capacity and minimum

FORMAT	CAPACITY	MINIMUM TO CONFIRM	TYPICAL PRICE PER SEAT (ILLUSTRATIVE)
5v5	10	8	€5–€7
7v7	14	10	€6–€8
8v8	16	12	€7–€9
11v11	22	16	€8–€10

9.3 Integrity rules enforced by the engine

- **No overlap.** Two reservations on the same pitch never intersect (half-open intervals). Enforced in the engine on every write; re-checked by the database exclusion constraint on projection (NFR-005).
- **One seat per player per game.** Unique (game_id, player_id) on Booking; violation returns booking.duplicate.
- **Ledger balance.** For every booking: charges minus refunds minus credits = amount_cents minus refunded_cents; verified by the Monday reconciliation (section 12.5).
- **State machines.** Game and Booking only move along the transitions in Figures 12 and 13; any other transition throws and is logged.
- **Money on Game is frozen at publish; money on Booking is frozen at booking.** Later price changes create new games, not new prices.

10. API contract

10.1 Conventions

Table 32. API conventions

TOPIC	CONVENTION
Base	https://api.example/, JSON request and response bodies, UTF-8, timestamps ISO 8601 in UTC
Authentication	Web: httpOnly session cookie per surface, proxied by the BFF. Mobile: bearer token from POST /auth/login or a social token exchange. Every route declares the surface it accepts.
Authorisation	Server-side on every route from the caller's grants (section 13.2). A refused call returns 403 with reason; a resource the caller may not know exists returns 404.
Validation	Request bodies validated against a schema; a failure returns 400 with the first failing path.
Errors	{ "error": "CODE", "reason": "dot.key", "message": "localised text" }; reason is stable and machine-readable (Table 43); message follows the account's language.
Idempotency	Mutations that move money accept Idempotency-Key; a replay within 24 h returns the original response and performs nothing.
Rate limits	Per NFR-007; 429 with Retry-After.
Pagination	Cursor-based: ?limit=&cursor=; responses carry next_cursor when more exist.
Versioning	Additive changes only within v1; breaking changes introduce a new path prefix. Clients send X-Client-Version; the server logs it.
Webhooks (inbound)	POST /webhooks/payments: signature verified with a shared secret and a short replay window; events are idempotent by event id.

10.2 Endpoints (v1, selected)

Table 33. Endpoints

METHOD AND PATH	SURFACE	PURPOSE	REQUIREMENT
POST /auth/register, /auth/login, /auth/social	all	Email + password registration and login; Google/Apple token exchange	FR-044
POST /me/phone/request-code, /me/phone/confirm	player	Phone verification	FR-045
GET /games?city&format&date&lat&lng	player	Game list	FR-001 to 003
GET /games/{id}	player	Game page: lineup, host, quote for the viewer	FR-004, FR-009
POST /games/{id}/quote	player	Quote: seat, fee, credit applied, card amount	FR-009, FR-010
POST /games/{id}/book	player	Book one seat; charges card if needed; idempotent	FR-006, FR-011, FR-012
DELETE /bookings/{id}	player	Leave a game (DT-1/DT-2)	FR-008
POST /games/{id}/waitlist, POST /waitlist/{id}/claim	player	Join; claim an offer	FR-007
GET /me/schedule, GET /me/payments	player	Upcoming and played games; payment history and credit	FR-008, FR-014
GET /games/{id}/chat, POST /games/{id}/chat	player	Match chat	FR-022
POST /games/{id}/mvp	player	Vote	FR-021
POST /venues/{id}/host-applications, POST /games/{id}/armband/accept	player	Apply to host; accept an invitation	FR-023, FR-024
GET /venues/{id}/day?date, GET /venues/{id}/week?from	mesa	Diary: reservations, free hours, closures per pitch	FR-028
POST /pitches/{id}/games	mesa	Publish a game from a free hour	FR-027
POST /pitches/{id}/reservations, DELETE /reservations/{id}	mesa	Phone and counter bookings; release	FR-029, FR-030
POST /pitches/{id}/fijos, POST /fijos/{id}/skip, POST /fijos/{id}/end	mesa	Weekly clubs	FR-029

METHOD AND PATH	SURFACE	PURPOSE	REQUIREMENT
POST /pitches/{id}/rules, PUT /pitches/{id}/rate, POST /pitches/{id}/close	mesa	Hours, prices, closures	FR-028, FR-031, FR-036
GET /venues/{id}/earnings, GET /venues/{id}/payouts	mesa (owner)	Till and statements	FR-032
POST /organiser/payouts/onboard	mesa (owner)	Start provider onboarding	FR-016
POST /venues/{id}/team, DELETE /venues/{id}/team/{userId}, PUT /venues/{id}/counter-pin	mesa (owner)	Roles and counter PIN	FR-033
GET /c/{slug}, GET /c/{slug}/rent, POST /c/{slug}/rent	public /player	Storefront; rent an hour	FR-037, FR-038
GET /calendar/{token}.ics	public	Calendar feed	FR-039
GET /admin/applications, POST /admin/applications/{id}/decide	consola	Venue applications	FR-040
GET /admin/games/at-risk, POST /admin/games/{id}/cancel	consola	Radar; cancel with refunds	FR-041
POST /admin/members/{id}/credit	consola	Goodwill credit with reason	FR-042
GET /venues/{id}/log, GET /admin/audit	mesa / consola	Audit logs	FR-043
POST /webhooks/payments	inbound	Provider events	section 12.4

Table 34. Domain error reasons (selected)

REASON	HTTP	WHEN
auth.required	401	No session or bearer for a protected route
venue.onlyOwner , venue.onlyTeam	403	Caller lacks the grant the route requires
phone.required	409	Booking or rental attempted without a verified phone
age.minimum	403	Account under 16 attempts to book
booking.duplicate	409	Second seat in the same game
game.full	409	No open seat; waitlist offered
game.future	400	Publishing a game with a kickoff in the past
pitch.slotTaken	409	Reservation overlaps another on the pitch
payment.unverified	402	Provider did not confirm the charge
rate.limited	429	NFR-007 limit reached; Retry-After set

10.3 Worked examples

Book a seat: request

```
POST /games/gam_7f3a/book
Authorization: Bearer <token>
Idempotency-Key: 2c0f...a9
Content-Type: application/json

{
  "quote_id": "qte_91d2",
  "use_credit": true,
  "payment_method": "pm_card_4242"
}
```

Book a seat: response 201

```
{
  "booking": {
    "id": "bkg_5e1c",
    "game_id": "gam_7f3a",
    "status": "confirmed",
    "amount_cents": 600,
    "credit_cents": 150,
    "card_cents": 450,
    "payment_ref": "pi_3Nx...",
    "created_at": "2026-09-13T17:02:11Z"
  },
  "game": { "booked": 8, "capacity": 10, "status": "published" },
  "receipt_email": "queued"
}
```

Quote: response 200

```
{
  "seat_cents": 500,
  "fee_cents": 100,           // 5% of 500 = 25, then
  floor 100
  "fee_vat_cents": 17,       // 21% inside the fee
  "total_cents": 600,
  "credit_applied_cents": 150,
  "card_cents": 450,
  "expires_at": "2026-09-13T17:12:00Z",
  "rules": {
    "free_cancel_until": "2026-09-14T18:45:00Z",
    "late_leave": "credit"
  }
}
```

Refusal: response 409

```
{
  "error": "CONFLICT",
  "reason": "booking.duplicate",
  "message": "Ya tienes plaza en este partido."
}

// Full game, offering the waitlist: 409
{
  "error": "CONFLICT",
  "reason": "game.full",
  "message": "Completo. Puedes apuntarte a la lista.",
  "waitlist": { "position_if_joined": 3 }
}
```

11. Key interactions

Four sequence diagrams and two state machines cover the interactions where money or state can go wrong. Message numbers are referenced by the test cases in section 16.

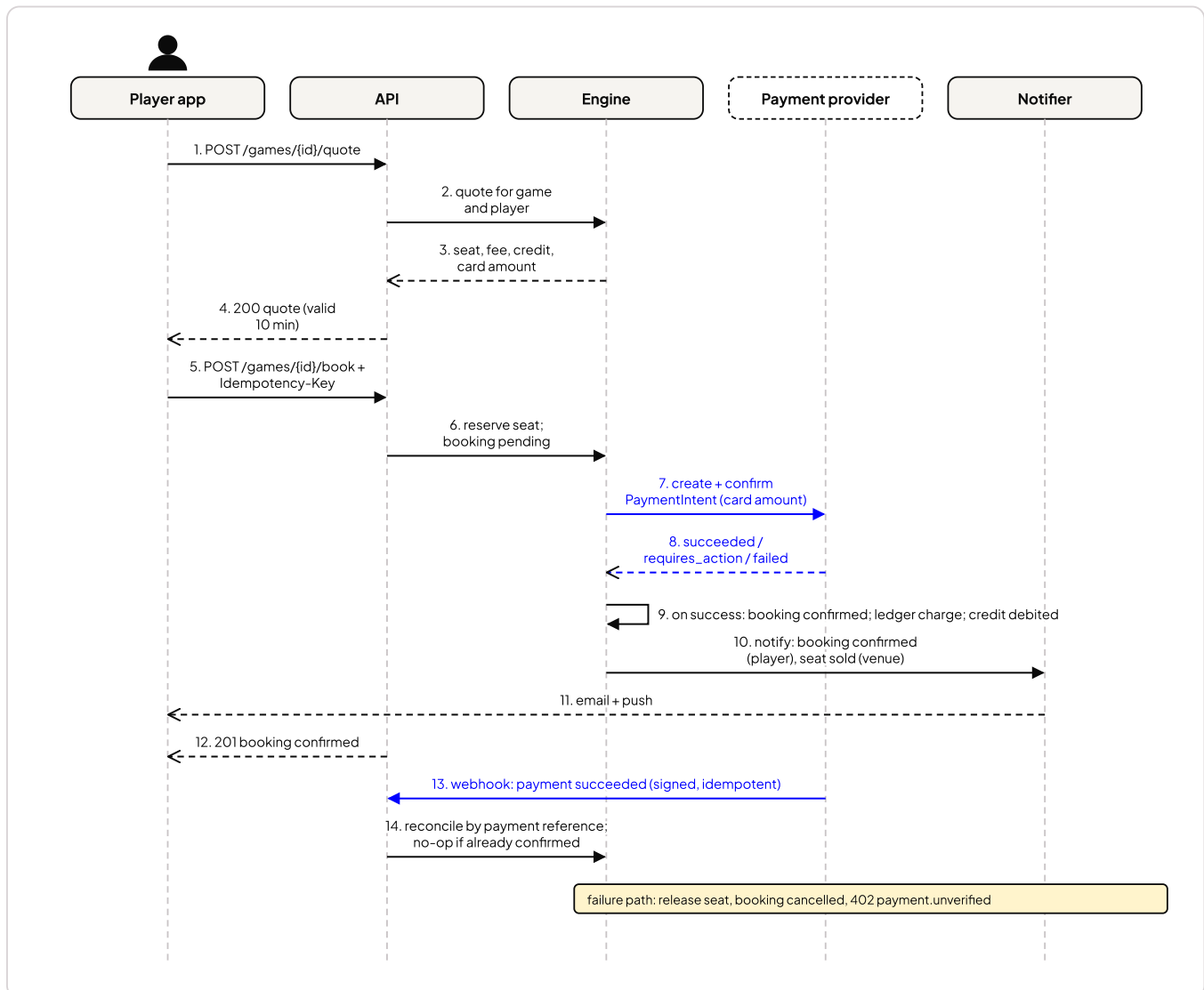


Figure 8. Book and pay. The seat is held before the charge and released if the charge fails; the provider webhook is a reconciliation, not the source of truth, so a lost webhook cannot lose a booking.

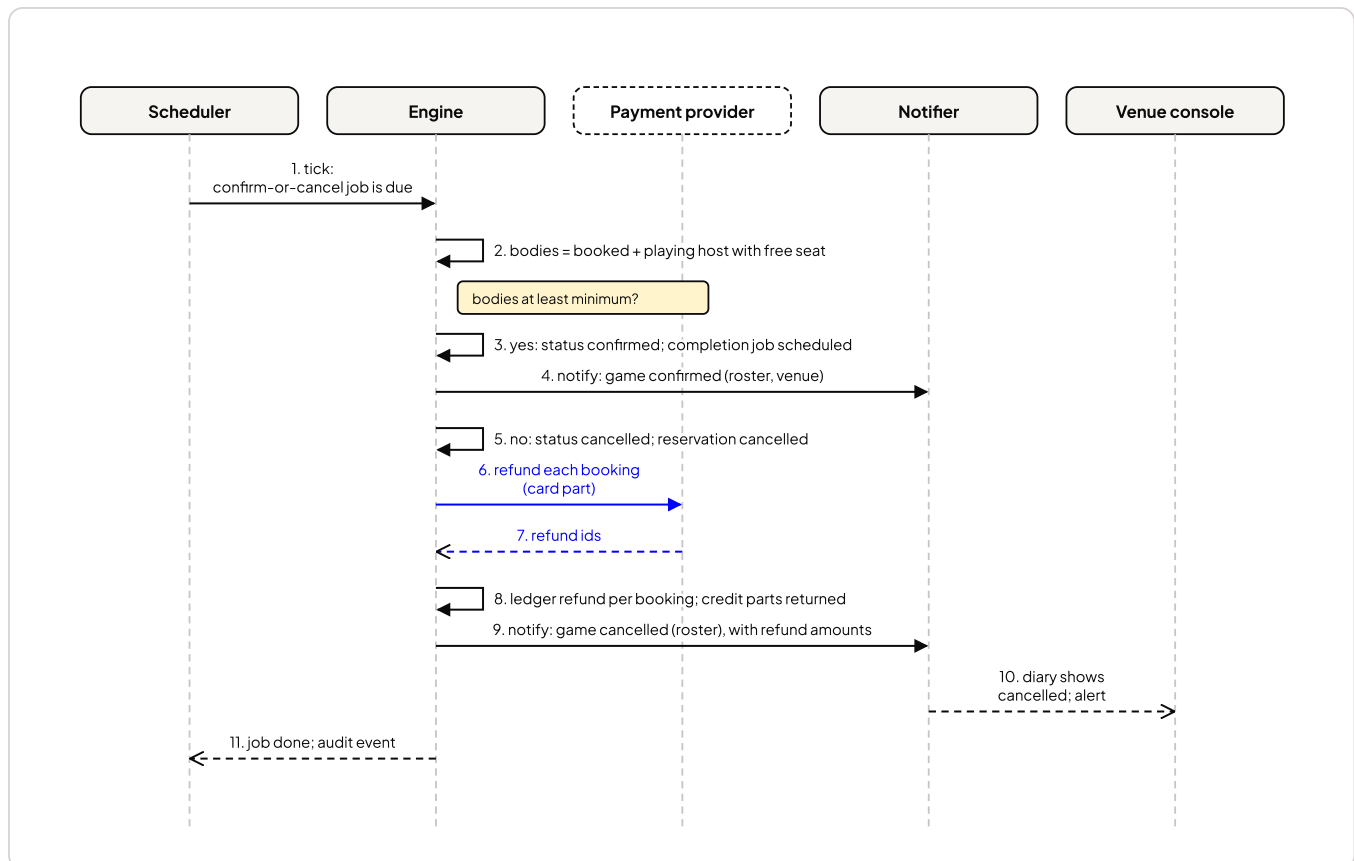


Figure 9. Confirm-or-cancel at the deadline (FR-018). The count uses people on the pitch (FR-019). Refunds are issued per booking with a ledger entry each; the venue's diary updates through the same notification.

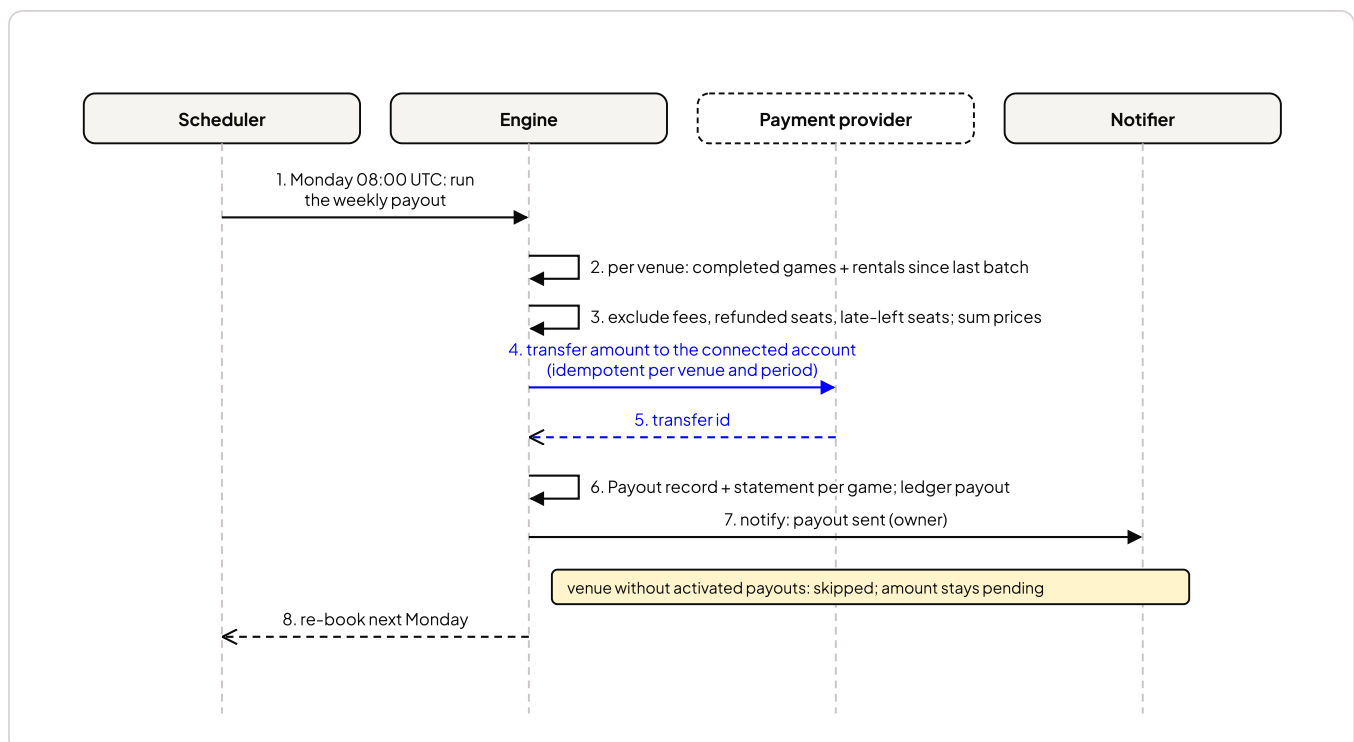


Figure 10. Weekly payout (FR-015). Transfers are idempotent per venue and period so a re-run after a crash cannot pay twice.

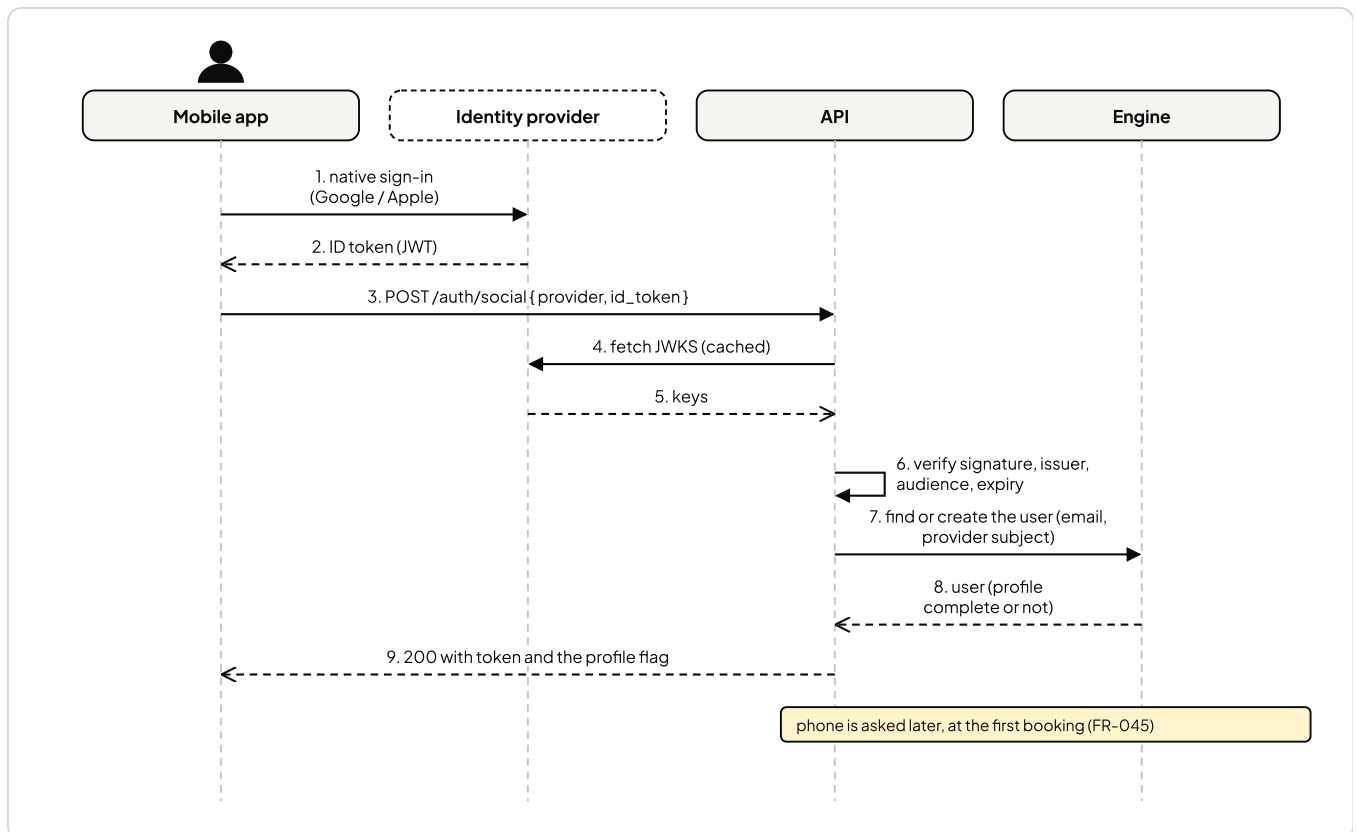


Figure 11. Social sign-in (FR-044). ID tokens are verified against the provider’s published keys; no hosted UI or third-party auth service sits between the app and the API.

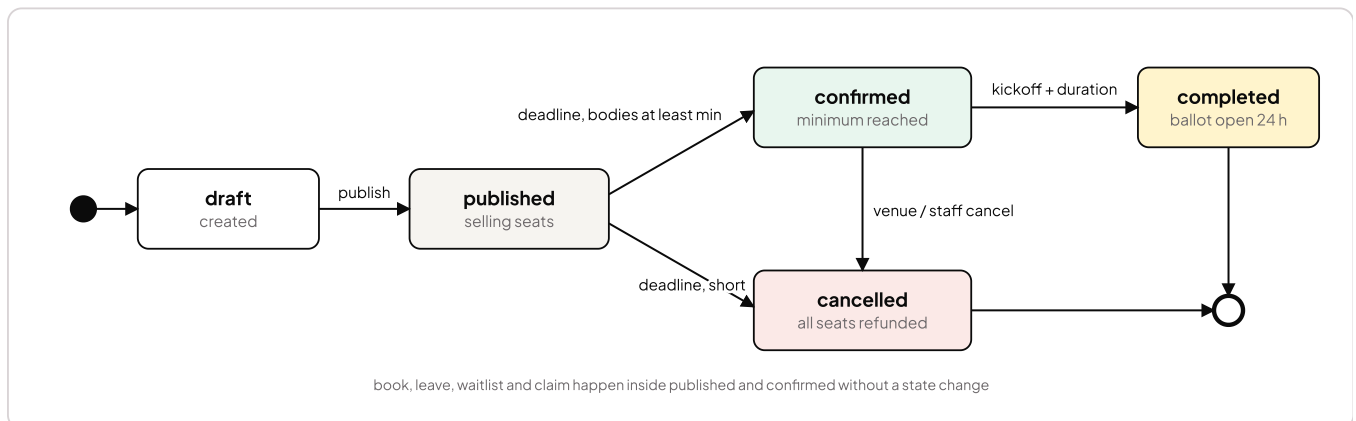


Figure 12. Game state machine (FR-017). Bookings, leaves and waitlist moves happen inside published and confirmed without changing the game’s state.

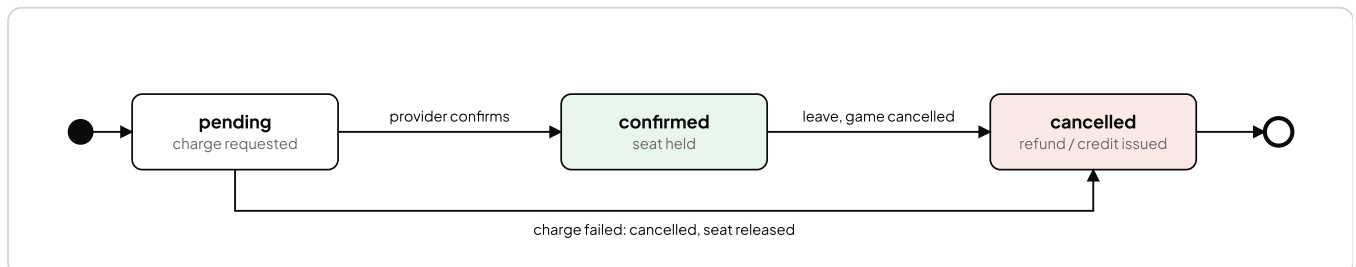


Figure 13. Booking state machine. pending exists only between the charge request and the provider’s answer; a failed charge cancels the booking and releases the seat.

12. Payments design

12.1 Fee and quote

The booking fee is 5% of the seat price, clamped to a minimum of €1 and a maximum of €6, and includes VAT at 21%. It is computed at quote time, shown before payment (FR-009) and frozen on the booking. Credit is applied before the card, and a card charge of less than €0.50 is never created (FR-010).

Table 35. Worked examples of the quote

SEAT PRICE	5%	FEE AFTER CLAMP	VAT INSIDE FEE	TOTAL	CREDIT AVAILABLE	CARD CHARGED
€5.00	€0.25	€1.00 (floor)	€0.17	€6.00	€0.00	€6.00
€8.00	€0.40	€1.00 (floor)	€0.17	€9.00	€1.50	€7.50
€25.00	€1.25	€1.25	€0.22	€26.25	€26.25	€0.00 (no card step)
€150.00 (whole pitch)	€7.50	€6.00 (cap)	€1.04	€156.00	€155.80	€0.00: remainder €0.20 < €0.50, taken from credit only
€150.00 (whole pitch)	€7.50	€6.00 (cap)	€1.04	€156.00	€100.00	€56.00

Group games at a venue price the organiser's place as the whole-hour price divided by the format capacity, rounded up to the cent; the organiser never sets a price and never profits (DEC-011).

12.2 When money moves

Table 36. Money movement by product

PRODUCT	AT BOOKING	AT DEADLINE	AFTER THE GAME	MONDAY
A seat in a venue game	Card charged for seat + fee (credit first)	Cancelled: full refund. Confirmed: nothing	Completed: seat price becomes payable to the venue	Transfer of seat prices; fee kept
A whole pitch by the hour	Card charged for hour price + fee	n/a	Hour price payable to the venue	Transfer; fee kept
A friends' game at a venue	Organiser pays their own seat to hold the hour; each friend pays their seat	As venue game	As venue game	As venue game
A friends' game elsewhere	No money through the platform	-	-	-

12.3 Refunds, credit and disputes

Refund outcomes follow the decision table in section 4.4. Each refund returns every part to its source: the card part to the card through the provider, the credit part to the credit balance; both write a ledger entry with a reason. Credit granted for a late leave is valid twelve months; goodwill credit (FR-042) carries the staff member's reason.

DECISION PENDING

DEC-014: when a seat is left inside 24 hours the player receives credit and the seat is not paid to the venue under the v1 rules; the venue terms do not yet state this. The owner will either pay the venue the seat price on late leaves or add the clause. No code change is needed for either; only the payout query or the terms.

Disputes (chargebacks) are handled in the provider's dashboard by the owner; the ledger entry is marked disputed by the webhook and the booking's history shows it. A won dispute changes nothing; a lost one writes a negative ledger entry against the platform, never against the venue.

12.4 Webhook handling

Table 37. Provider events handled

EVENT	ACTION	IDEMPOTENCY
payment_intent.succeeded	Reconcile the booking: confirm if still pending; no-op if confirmed	By event id and intent id
payment_intent.payment_failed	Cancel a pending booking, release the seat, notify	By event id
charge.refunded	Mark the ledger entry settled; no new refund	By refund id
charge.dispute.created / closed	Flag the ledger entry; notify the owner	By dispute id
account.updated	Update the venue's payout status (details submitted, payouts enabled)	By account id; last write wins
transfer.reversed	Flag the payout; notify the owner; hold the next batch for that venue	By transfer id

Every inbound webhook is verified with the shared secret and rejected outside a short replay window. Events arriving before the API's own confirmation are held in a short queue and re-applied; events for unknown references are logged and dropped.

12.5 Reconciliation and PCI scope

- **Weekly reconciliation.** After each Monday batch: ledger charges minus refunds minus fees = sum of transfers + platform balance movement. A mismatch above one cent raises an alert (section 14.4) and blocks the next batch for the venue concerned.
- **Statements.** One line per game or rental per payout: date, pitch, seats sold, seat price, refunds, amount. Exportable as CSV for the venue's accountant.
- **PCI DSS.** Card data is entered into the provider's hosted elements in the browser and app; card numbers never reach the API. The platform is in the provider's SAQ-A scope. No card data is stored; only the provider's intent and payment-method identifiers.
- **VAT.** The platform acts as an intermediary (DEC-006): the booking fee is the platform's taxable supply with VAT inside; the seat price is the venue's supply and passes through. Statements separate the two.

13. Identity, access and personal data

13.1 Accounts and sessions

One account per person, created with email and password or by a social sign-in (FR-044). The role decides which surfaces the account can open; it never changes how the person signs in. The phone number is a verified contact, required at the first booking (FR-045), not a login.

Table 38. Sessions by surface

SURFACE	WHO	TOKEN CARRIER	LIFETIME	REFRESH	NOTES
player	Any account	httpOnly cookie (web), bearer (mobile)	long-lived	Silent refresh before expiry (web)	Age gate applies at booking
mesa	Accounts with a venue grant	httpOnly cookie, separate name	a working day	Re-login	Counter mode narrows the session behind a PIN
consola	Staff accounts	httpOnly cookie, separate name	short	Re-login	Web only; not reachable from the mobile app

13.2 Access matrix

Table 39. Access matrix (server-enforced)

RESOURCE	PLAYER	HOST	OWNER	CO-MANAGER	OBSERVER	COUNTER	STAFF
Game list, game page, book, leave, waitlist	R/W	R/W	-	-	-	-	R
Match chat	booked	booked	-	-	-	-	R
Attendance, armband accept	-	W	W	W	-	-	-
Diary (day, week, month)	-	-	R/W	R/W	R	today R/W	R
Publish game, phone/counter bookings, weekly clubs	-	-	W	W	-	today W	-
Close pitch, hours, prices	-	-	W	W	-	-	-
Till: earnings, payouts, payout details	-	-	R/W	-	-	takings R	R
Keys (team), counter PIN, account	-	-	W	-	-	-	-
Venue applications, at-risk games, refunds, members	-	-	-	-	-	-	R/W
Audit log	-	-	venue R	-	-	-	R

Every row is a server-side check; the UI hides what the server would refuse but never decides. TC-095 exercises the matrix with twenty routes across seven roles.

13.3 Age and eligibility

Players must be 16 or over (DEC-003). The date of birth is collected at signup (including social signup, which cannot supply it) and re-checked at every booking and rental, so an account created before the rule or through a gap cannot book. No identity document is requested; the product's terms state the rule and the consequences of misrepresentation.

13.4 Personal data map

Table 40. Personal data: what, why, where, how long

DATA ITEM	PURPOSE	STORE	RETENTION	LAWFUL BASIS
Name, email, password hash	Account and contact	Database (world)	Until erasure	Contract
Phone number	Verification; venue contact for a booking	Database	Until erasure	Contract
Date of birth	Age eligibility	Database	Until erasure	Legal obligation
Location (opt-in)	Sort games by distance	Not stored; request only	-	Consent
Bookings, ledger entries	Service delivery; accounting	Database	6 years (accounting) after erasure of identity	Legal obligation
Chat messages	Match coordination	Database	30 days after the game	Contract
Provider identifiers (customer, intent, account)	Payments and payouts	Database + provider	As ledger	Contract
Push subscriptions	Notifications	Database	Until unsubscribed or erased	Consent
Request logs (IP, user agent)	Security and debugging	Log store	30 days	Legitimate interest
Venue photos	Storefront	Object storage	Until venue removes	Contract (venue)

13.4 Rights and procedures

- **Erasure.** One action by the owner or staff (or self-service from settings): identity fields are replaced with a tombstone, sessions closed, push subscriptions removed, chat messages deleted; bookings and ledger entries are kept with the tombstone for the accounting period. Completed within 72 hours of the request (NFR-009).
- **Access and portability.** A JSON export of the account, bookings and payment history on request, produced by one script.

- **Analytics.** No third-party analytics or advertising cookies. Page views are counted by a cookie-free beacon on a whitelist of marketing paths.
- **Processors.** Payment provider, email service, SMS gateway, cloud platform. Each under a data-processing agreement; listed in the privacy notice.

14. Automation, operations and monitoring

14.1 Scheduled jobs

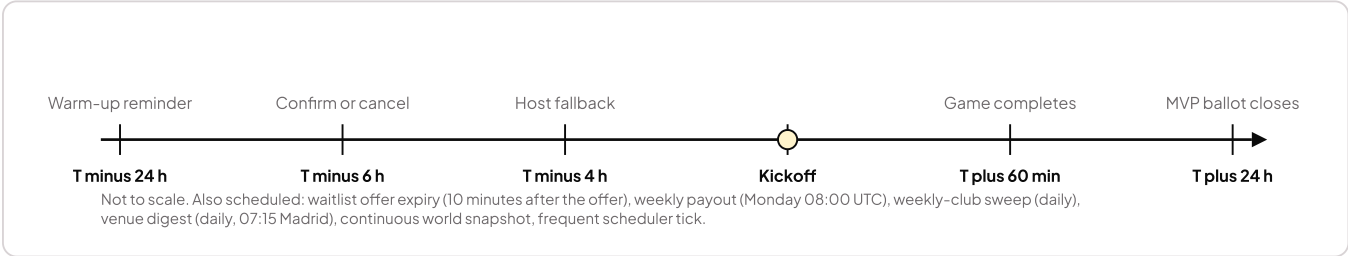


Figure 14. Job timeline around one game. Every job is scheduled by the engine when the game is published and runs from the scheduler tick; none needs an operator. Job identifiers are listed in Table 41.

Table 41. Job catalogue

JOB	TRIGGER	ACTION	ON FAILURE
confirm_deadline	kickoff minus 6 h	Confirm or cancel with refunds (section 11, Figure 9)	Retried next tick; refunds idempotent by booking
host_fallback	kickoff minus 4 h	Hostless: chat notice; release held host seat to the waitlist	Retried; notice idempotent
warmup_nudge	kickoff minus 24 h, per player	Warm-up plan notification	Skipped if past kickoff
offer_expiry	offer + 10 min	Expire the waitlist offer; offer to next	Retried
complete_game	kickoff + duration	Mark completed; open MVP ballot; schedule next weekly instance	Retried
mvp_close	kickoff + 24 h	Count votes; record winner; notify	Retried
weekly_payout	Monday 08:00 UTC	Transfers and statements (Figure 10)	Provider error: venue skipped, alert raised, re-run manual (Runbook RB-2)
fijos_sweep	daily	Materialise weekly clubs a fortnight ahead; report clashes	Retried next day; clashes surfaced in Diary
biz_digest	daily 07:15 Madrid	Yesterday's numbers by email to opted-in owners	Skipped; no retry
snapshot	continuously and on shutdown	Persist the world; rewrite projections	Alert if two consecutive saves fail

14.2 Notification matrix

Twenty-eight notification types are catalogued in Appendix C. The matrix below shows the channel policy: email for anything with money or a decision in it; push and in-app for anything time-sensitive; SMS only for the phone code.

Table 42. Channel policy

EVENT CLASS	EMAIL	PUSH	IN-APP	SMS
Booking, refund, credit, payout (money)	Yes	Yes	Yes	-
Game confirmed / cancelled / about to have no host	Yes	Yes	Yes	-
Waitlist offer (10-minute window)	Yes	Yes	Yes	-
Chat message, follow, MVP result	-	Yes	Yes	-
Venue application decisions, payouts activated, team changes	Yes	-	Yes	-
Daily venue digest	Yes (opt-in)	-	-	-
Phone verification code	-	-	-	Yes

14.3 Backup, restore and recovery

Table 43. Recovery objectives

SCENARIO	RPO	RTO	PROCEDURE
API process crash	last persisted state	minutes (auto-restart, restore at boot)	RB-1: verify boot log "restored world"; check pending jobs re-armed
Database loss	point-in-time restore	under an hour	RB-3: restore backup to a new instance; rotate the connection secret; redeploy
Bad deploy	0	at most 10 min	RB-4: roll back to previous image; the platform keeps the last two
Provider outage	0	n/a	Bookings fail closed (402); diary and console unaffected; retry later

14.4 Monitoring and alerts

Table 44. Signals and thresholds

SIGNAL	THRESHOLD	CHANNEL	RUNBOOK
HTTP 5xx rate	sustained rise over baseline	Email + phone	RB-1
payment.unverified count	cluster within minutes	Email + phone	RB-5: check provider status; hold announcements
Webhook signature failures	cluster within minutes	Email	RB-5
Snapshot failures	2 consecutive	Email + phone	RB-3
Payout batch mismatch (section 12.5)	any	Email	RB-2
Email bounce / complaint rate	above provider guidance	Email	RB-6: pause digest; review list
Deploy drift (origin vs running build stamps)	any	Console output of the status script	section 18.3

14.5 Runbook excerpt: RB-2 failed payout batch

1. Read the alert: venue id, period, provider error code.
2. In the till for that venue, confirm pending amount equals the statement lines (Table 25 rule).
3. If the provider error is a KYC hold: nothing to do; the amount stays pending; email the owner the provider's requirement.
4. If the error is transient: re-run the batch for that venue with the same idempotency key (Appendix D, command 4). A duplicate transfer is impossible by construction.
5. If the error persists: open a ticket with the provider; note the payout id in the RAID log as an issue; inform the venue by email with the expected date.
6. Close the alert; the next Monday batch includes any still-pending amount automatically.

15. Screens: from wireframe to shipped UI

Wireframes were drawn for every screen in week 1 and reviewed with the pilot players; the shipped screens follow the design system agreed in week 2. Three screens are shown here with their wireframe and the annotations that drove the layout. The full inventory follows. Screens show seeded demo data.

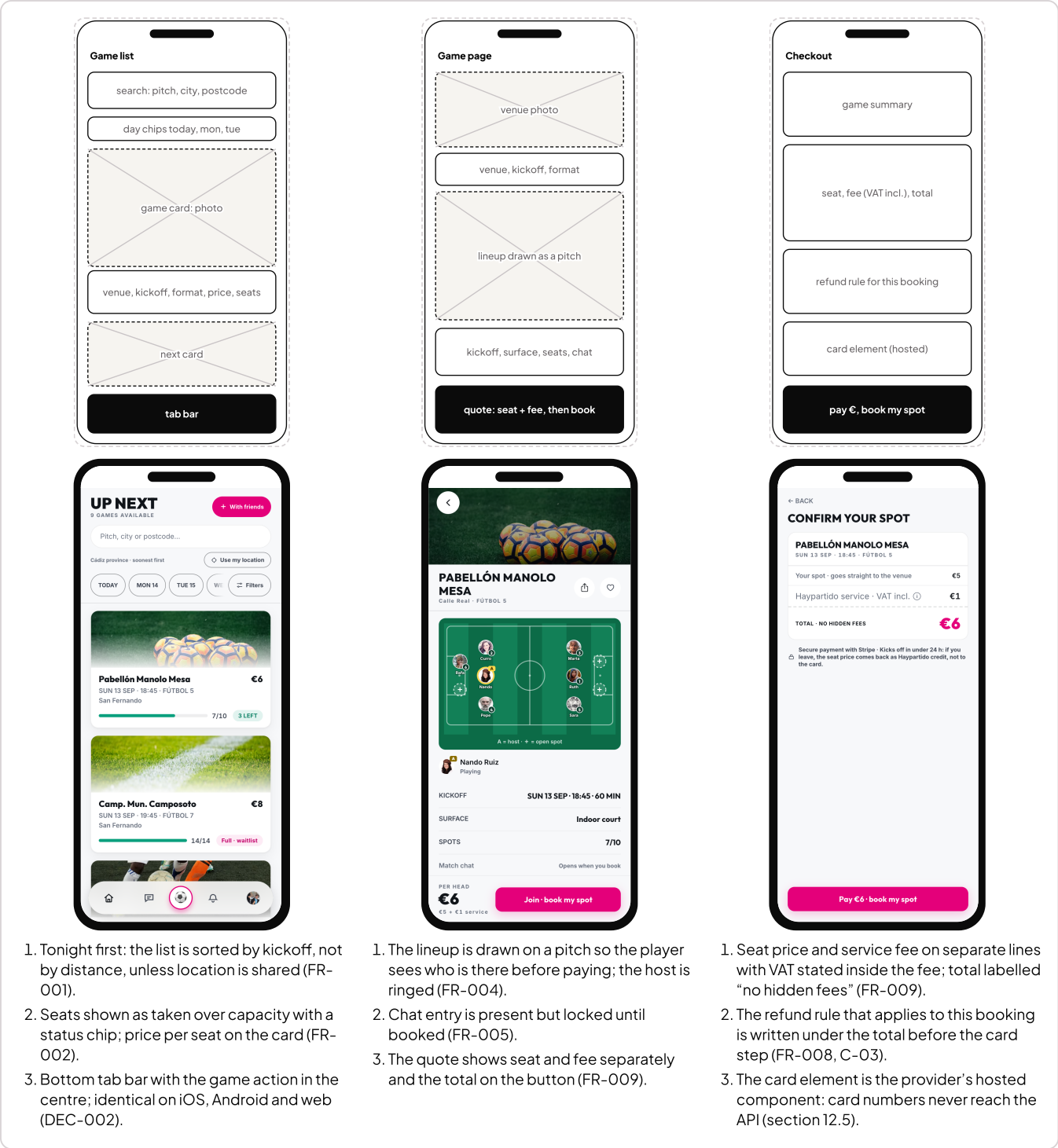


Table 45. Screen inventory (player app; venue and staff consoles listed in Appendix B)

SCREEN	ROUTE (WEB), ROUTE (MOBILE)	STORIES	NOTES
Sign in / sign up	/entrar, /registrarse, login	US-055, US-056	Email, Google, Apple; DOB step
Game list	/, (tabs)/index	US-001 to US-003	City, format, date filters; location opt-in
Game page	/games/[id], game/[id]	US-004, US-005	Lineup, host, quote, chat entry
Checkout	/games/[id]/checkout, sheet in game/[id]	US-004, US-010	Phone step on first booking
Schedule	/agenda, (tabs)/tickets	US-008, US-015	Upcoming and played; leave; calendar
Match chat	/chat/[channel], thread/[channel]	US-020	System notices for host changes
Warm-up	/games/[id]/calentamiento, warmup/[id]	US-019	Opens 45 min before
MVP vote	/games/[id]/mvp, mvp/[id]	US-021	24-hour ballot
Profile, settings, payments	/account, /ajustes, /ajustes/pagos, account, ajustes, pagos	US-057 to US-060	Credit balance, payment history, erasure
Organise a game	/organizar, organize	US-025	At a venue or elsewhere (no money)
Become a host	/ser-anfitrión, ser-anfitrión	US-022	Application to a venue pool
Storefront	/c/[slug] (web)	US-048 to US-050	Public; rent an hour

16. Test strategy, UAT and results

16.1 Strategy

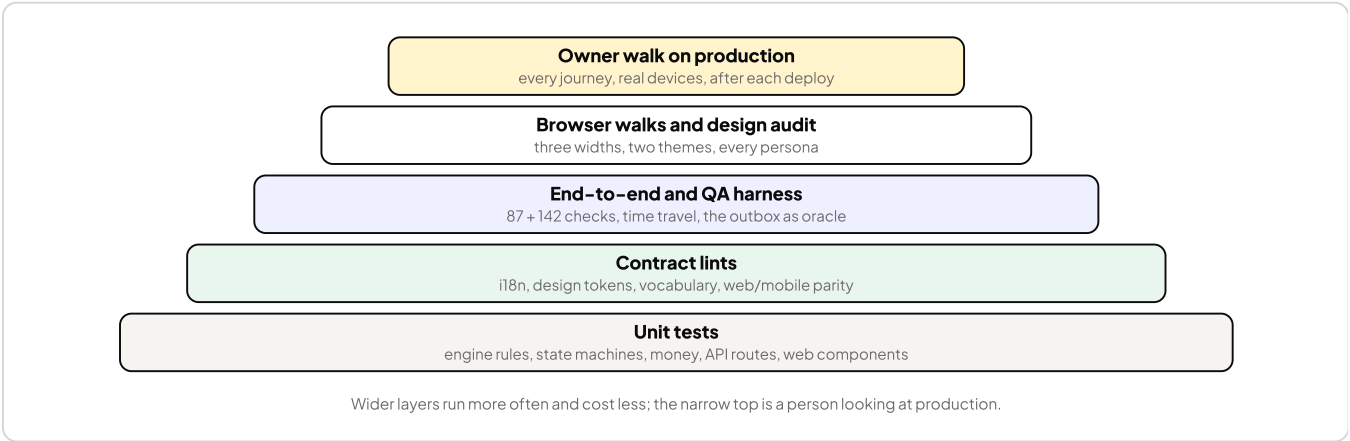


Figure 16. Test levels. Each level has an owner, a trigger and an exit criterion (Table 46).

Table 46. Test levels

LEVEL	SCOPE	OWNER	TRIGGER	EXIT CRITERION
Unit	Engine rules, state machines, money arithmetic; API routes with fakes; web components	Developer	Every commit	100% pass; engine coverage at least 85% lines (NFR-019)
Contract lints	No hardcoded copy; tokens only; retired vocabulary; web and mobile change together	Developer	Every commit; ship gate	Zero findings
End-to-end (harness)	Scenario families across player, venue, staff with time travel; email outbox as oracle	Analyst	Before every release	100% pass
Pre-launch QA (harness)	Money to the cent, windows to the minute, races, boundaries, access matrix, limits, latency	Analyst	Before launch; after any money change	100% pass; no Major open
Browser and device walks	Every room at 375 / 820 / 1280, both themes; iOS and Android devices	Analyst	Before every release	No overflow, no target < 44 px, no dead hydration
UAT	Scripts per persona executed by the owner, two venues and four pilot players on production with test cards	Product owner	Week 6	Sign-off (section 16.4)
Production smoke	Read-only route checks; build-stamp drift	Ship script	After every deploy	All 200; no drift

16.2 Test cases (sample of 118)

Test cases are written against requirements, not screens, so they survive redesigns. Steps reference the message numbers in section 11 where relevant. Results are from the final run (illustrative).

Table 47. Test cases (sample)

ID	TITLE / PRECONDITION	STEPS	EXPECTED	REQ.	RESULT
TC-011	Book one seat, card only Pre: published game with 3 open seats; player phone verified; no credit	1. quote; 2. book with key K; 3. read schedule	booking confirmed; seat count +1; ledger charge = total; "Booking confirmed" in outbox	FR-006, FR-011	Pass
TC-012	Idempotent replay Pre: TC-011 done	1. repeat book with the same key K	200 with the original booking; no second charge; seat count unchanged	FR-012	Pass
TC-013	Duplicate seat refused Pre: player holds a confirmed booking	1. book again with a new key	409 booking.duplicate; nothing charged	FR-006	Pass
TC-014	Last seat race Pre: game with 1 open seat; 30 players	1. all 30 book concurrently	exactly 1 confirmed; 29 x 409 game.full; waitlist has 29 entries in order	FR-006, FR-007, NFR-005	Pass
TC-016	Waitlist offer expires Pre: player first on waitlist; a seat frees	1. wait 10 min (time travel); 2. read waitlist	offer expired; next entry holds the offer; both notified	FR-007	Pass
TC-021	Auto-cancel below minimum Pre: 5v5 with 7 bodies at T minus 6 h	1. advance clock to deadline; 2. tick	game cancelled; 7 refunds to source; 7 "Game cancelled" emails with amounts; reservation freed	FR-013, FR-018	Pass
TC-022	Confirm at minimum with playing host Pre: 5v5 with 7 paid + host free seat	1. advance to deadline	bodies = 8, so confirmed; roster notified; venue diary shows confirmed	FR-018, FR-019	Pass
TC-024	Leave at 24 h 01 min Pre: confirmed booking	1. set clock to kickoff minus 24 h 01 min; 2. leave	full refund to card; fee refunded; "Refund issued" email	FR-008, DT-1	Pass
TC-025	Leave at 23 h 59 min Pre: confirmed booking, part paid by credit	1. set clock to kickoff - 23 h 59 min; 2. leave	seat price becomes credit (12 months); fee kept; card untouched; ledger credit entry	FR-008, DT-2	Pass
TC-031	Fee floor and cap Pre: seat prices €5, €25, €150	1. quote each	fees €1.00, €1.25, €6.00; VAT inside 0.17, 0.22, 1.04	FR-009	Pass
TC-032	No card charge under €0.50 Pre: seat €156.00 total; credit €155.80	1. quote; 2. book	card_cents 0; credit debited €155.80; remainder €0.20 taken from credit; no intent created	FR-010	Pass after fix (DEF-04)
TC-045	Three-way collision Pre: free hour on Pitch 2	1. app game publish, phone booking, rental submitted concurrently	exactly one reservation; two x 409 pitch.slotTaken; projection constraint never triggered	FR-030, NFR-005	Pass
TC-046	Close pitch for rain Pre: two games and a rental today on Pitch 1	1. close Pitch 1 for today	both games cancelled (DT-4); renter refunded (DT-6); 20 emails; hours closed; log entry with actor	FR-031, FR-043	Pass
TC-051	Pending payout equals statement Pre: 7 paid seats, 1 late leave, 1 refund since last batch	1. read till	pending = 6 x seat price; 6 statement lines	FR-032	Pass
TC-052	Monday batch Pre: TC-051 state; payouts activated	1. advance to Monday 08:00 UTC; 2. tick	transfer created for 6 x seat price with idempotency venue+period; pending 0; "Payout sent" email	FR-015	Pass
TC-053	Batch re-run is safe Pre: TC-052 done	1. re-run weekly_payout	no second transfer; log "already paid"	FR-015, NFR-015	Pass
TC-054	Payouts not activated Pre: venue with pending €104, no connected account	1. advance to Monday	no transfer; pending unchanged; till shows held with activation first	FR-016	Pass
TC-071	Audit log completeness Pre: staff cancels a game	1. cancel with refunds; 2. read audit	entry with actor, action, game id, before/after status, within 1 s	FR-043, NFR-016	Pass

ID	TITLE / PRECONDITION	STEPS	EXPECTED	REQ.	RESULT
TC-083	Under-16 refused Pre: social sign-in with new email	1. submit DOB 15 years ago	signup refused with age rule; no account	FR-044, C-05	Pass
TC-092	Login rate limit Pre: account exists	1. wrong passwords past the limit; 2. one more with the right one	429 with Retry-After; correct password refused until window passes	NFR-007	Pass
TC-095	Access matrix Pre: seven role tokens	1. call 20 routes with each	every cell of Table 40 as specified; refused calls logged	NFR-008, FR-033	Pass after fix (DEF-06)
TC-099	DST night Pre: game at 20:00 on 25 Oct 2026	1. advance across 03:00; 2. tick	kickoff unchanged in local time; deadline fired once	NFR-014	Pass
TC-101	Load above launch level Pre: seeded world, 40 games	1. concurrent requests on the game list above launch load	p95 at most 300 ms; 0 errors	NFR-001	Pass
TC-103	Crash and restore Pre: live world with pending jobs	1. kill API; 2. auto-restart; 3. tick	world restored from last snapshot; jobs re-armed; no duplicate refunds	NFR-003, NFR-004	Pass

16.3 Defect log (illustrative)

Table 48. Defects found in test and UAT

ID	SEV	FOUND IN	SUMMARY	ROOT CAUSE	FIX	STATUS
DEF-01	Major	QA harness	Game accepted with a kickoff in the past	Missing guard on publish route	Route guard + TC-027	Closed
DEF-02	Major	QA harness	Rental release refunded but sent no email; API answered refundedCents 0	Refund was fire-and-forget	One refund rule read by route and cancel; renter + venue emails	Closed
DEF-03	Minor	UAT (venue)	Week view header wrapped at 375 px	Long month names	Abbreviated month in the head	Closed
DEF-04	Major	QA harness	Card intent created for €0.20 remainder	Clamp applied after intent creation	Clamp in quote; TC-032	Closed
DEF-05	Minor	UAT (player)	Refund rule sentence missing on the checkout for rentals	Copy key absent for rental kind	Key added; i18n lint extended	Closed
DEF-06	Major	QA harness	Co-manager could read venue earnings by direct API call	Route guarded for team, not owner	Owner-or-staff guard; TC-095	Closed
DEF-07	Cosmetic	Device walk	Tab bar overlapped safe area on one Android device	Missing inset	Safe-area inset	Closed

16.4 User acceptance testing

Table 49. UAT plan

ITEM	DETAIL
Participants	Product owner (sign-off); two launch venues (one owner, one co-manager each); four pilot players; Goudplevier (facilitation, defect triage)
Environment	Production with test cards for players and a test connected account for venues; real SMS and email; the launch gate open only to participants by preview key
Entry criteria	All Must requirements implemented; harnesses green; no Major open; UAT scripts and accounts prepared; rollback rehearsed
Scripts	P1 sign up and book, P2 leave late, P3 waitlist, V1 set up in five steps, V2 sell an hour and take a phone booking, V3 close for rain, V4 read the till, S1 approve a venue, S2 cancel with refunds
Schedule	Week 6, days 1 to 3 execution; day 4 triage and fixes; day 5 re-test and sign-off
Defect handling	Severity per Table 48; Blocker and Major fixed before sign-off; Minor and Cosmetic accepted or scheduled
Exit criteria	All scripts passed by their persona; open decisions recorded (DEC-014); owner signature

Table 50. Defect severity and response

SEVERITY	DEFINITION	RESPONSE BEFORE GO-LIVE
Blocker	Money or bookings wrong in production; data loss	Fix immediately; no go-live
Major	A rule broken, a money step silent, a door open that should be shut	Fix before sign-off
Minor	Wrong copy or number without money impact; layout breaks a task	Fix or accept with a date
Cosmetic	Layout only	Backlog

16.5 Results summary

Table 51. Final run

LEVEL	EXECUTED	PASSED	FAILED	NOTE
Unit	912	912	0	illustrative
Contract lints	4	4	0	
End-to-end	87	87	0	
Pre-launch QA	142	142	0	ffth run, after DEF-01/02/04/06
UAT scripts	9	9	0	DEF-03, DEF-05 fixed within the window
Production smoke	16	16	0	after the final deploy

17. Delivery plan and ways of working

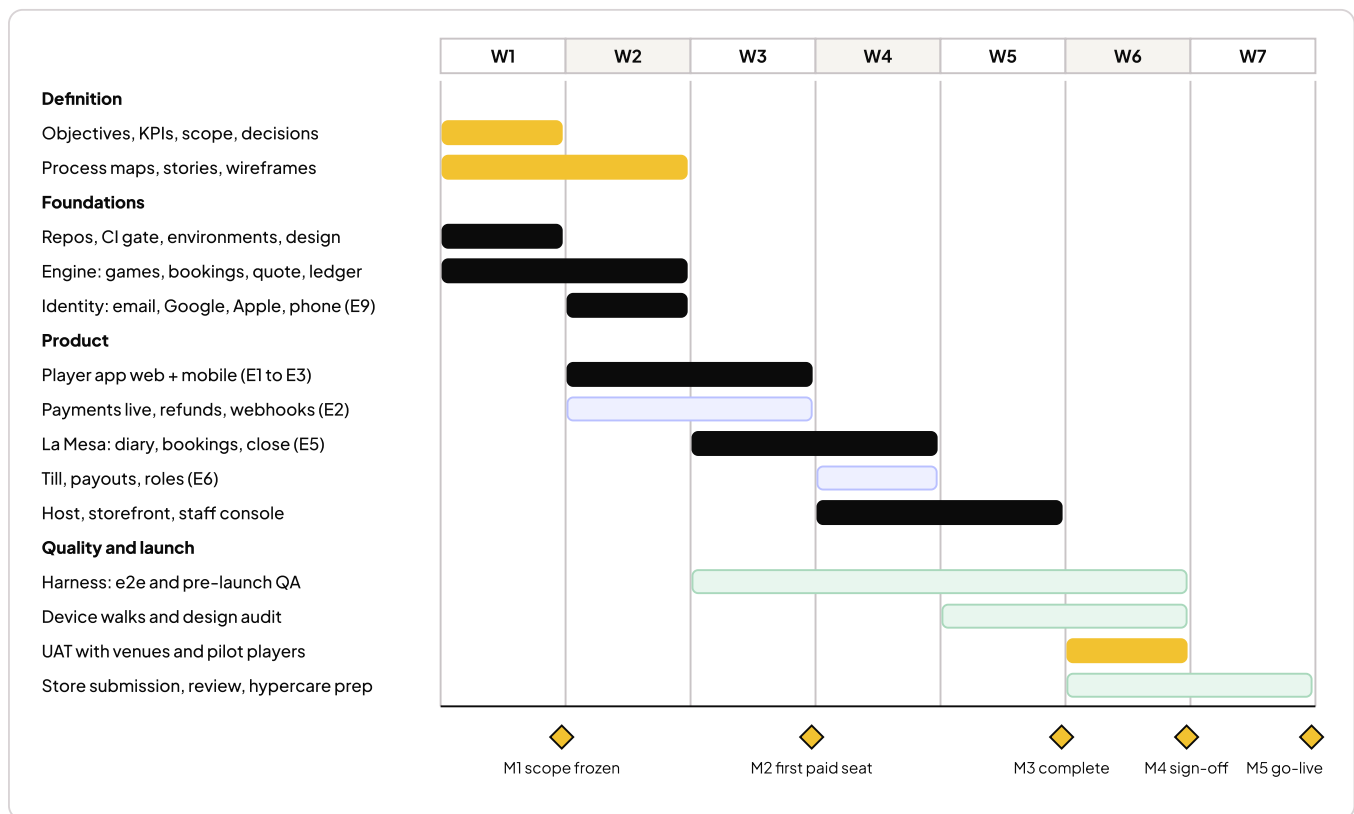


Figure 17. Seven-week plan by workstream. Gold: work done with the client; blue: money; green: quality. Milestones: M1 scope frozen, M2 first paid seat on a test card, M3 feature complete, M4 UAT sign-off, M5 go-live. Week 7 was added for store review (I-03).

Table 52. Week by week

WEEK	DELIVERED	CLIENT TIME NEEDED	EVIDENCE
1	Objectives, KPIs, scope; decisions DEC-001 to DEC-006; process maps; first stories; wireframes; repositories and CI gate	2 x 90 min sessions; decisions by email	This document v0.1; wireframes reviewed
2	Engine for games, bookings, quote and ledger; identity; design system; first web screens	60 min review	Unit tests green; walkthrough recording
3	Player app on web and mobile; card payments in test; harness families 1 to 6	60 min review; pilot players session	First paid seat on a test card (M2)
4	La Mesa diary and bookings; till and payouts in test; roles	90 min with launch venues	Venue walkthrough; DEF-03
5	Host, storefront, staff console; harness complete; device walks; design audit	60 min review	Feature complete (M3); audit report
6	UAT; fixes; store submission; runbooks	UAT days 1 to 3 and 5	Sign-off (M4)
7	Store review; hypercare preparation; this document v1.0	30 min go-live call	Go-live (M5)

Ways of working

- One request in progress at a time; a shipped update every week to production behind the launch gate
- Monday: plan and priorities (30 min). Friday: demo on production (30 min). Decisions by email, recorded in section 20 the same day
- Everything in the client's repositories and accounts from day one; no handover at the end
- Change requests against the frozen scope (M1) are estimated in days and traded against Should and Could items before extending the plan

Definition of done (per story)

- Acceptance criteria automated where the harness can reach them; otherwise a walk recorded
- Screen present on every surface the story applies to; parity lint green
- Copy in both languages; lexicon and i18n lints green
- Audit event for any state change by staff or venue
- Notification sent where Appendix C requires one; asserted in the outbox
- Merged, deployed to production, smoke green; story moved to done only after the Friday demo

Table 53. Effort by workstream (illustrative, analyst-developer days)

WORKSTREAM	DAYS	SHARE
Definition and requirements	5	14%
Engine and API	9	26%
Player app (web + mobile)	7	20%
La Mesa and staff console	7	20%
Test, UAT, audits	5	14%
Launch and documentation	2	6%
Total	35	100%

18. Go-live: readiness, cutover and hypercare

18.1 Readiness checklist

Table 54. Go-live readiness (status at baseline, illustrative)

#	ITEM	OWNER	STATUS
1	All Must requirements implemented and traced to passing tests (Appendix B)	Goudplevier	Done
2	UAT signed off; Blocker and Major defects closed	Product owner	Done
3	Live payment keys; connected-account onboarding tested with one venue; one-euro end-to-end script executed (booking, refund, credit, Monday payout)	Product owner	Done
4	VAT registration for the booking fee filed	Product owner	Open: D-02
5	Legal pages and venue terms published; DEC-014 clause added or decided	Product owner	Open: DEC-014
6	Email authentication (SPF, DKIM, DMARC) passing; bounce and complaint alerts armed	Goudplevier	Done
7	SMS sender registered; one real verification from a fresh phone	Product owner	Done
8	App Store and Play Store listings approved; sign-in with Apple live	Goudplevier	Done (week 7)
9	Alerts in section 14.4 delivering to the operator's phone	Goudplevier	Done
10	Backup verified by a restore drill; rollback rehearsed	Goudplevier	Done
11	Launch gate: preview key rotated; open paths reviewed; gate switch-off scheduled	Product owner	Ready
12	Support model agreed (section 18.4); venues have the console guide and the poster	Product owner	Done

18.2 Cutover runbook

Table 55. Cutover steps

STEP	ACTION	OWNER	TIME	VERIFICATION	ROLLBACK
C1	Freeze: no deploys from T minus 24 h except fixes agreed in the go-live call	Goudplevier	T minus 24 h	Status script: no drift	-
C2	Run the production smoke and the drift check	Goudplevier	T-2 h	16/16; stamps equal	-
C3	Switch the launch gate off (configuration change, redeploy web)	Goudplevier	T	Home page public; robots allow	Set gate on; redeploy (at most 10 min)
C4	Publish the three launch venues' storefronts; venues post the poster	Product owner	T	Storefront 200; games listed	Unpublish venue
C5	First real booking by the owner on a personal card (€5 seat)	Product owner	T+15 min	Ledger charge; receipt email; diary shows seat	Refund via staff console
C6	Announce to the pilot group; watch alerts for 2 h	Product owner / Goudplevier	T+30 min	No 5xx; no payment.unverified	Gate on if a Blocker appears
C7	End of day: read the audit log and the ledger; record issues in section 19	Goudplevier	T+8 h	Ledger balances	-

18.3 Deployment pipeline

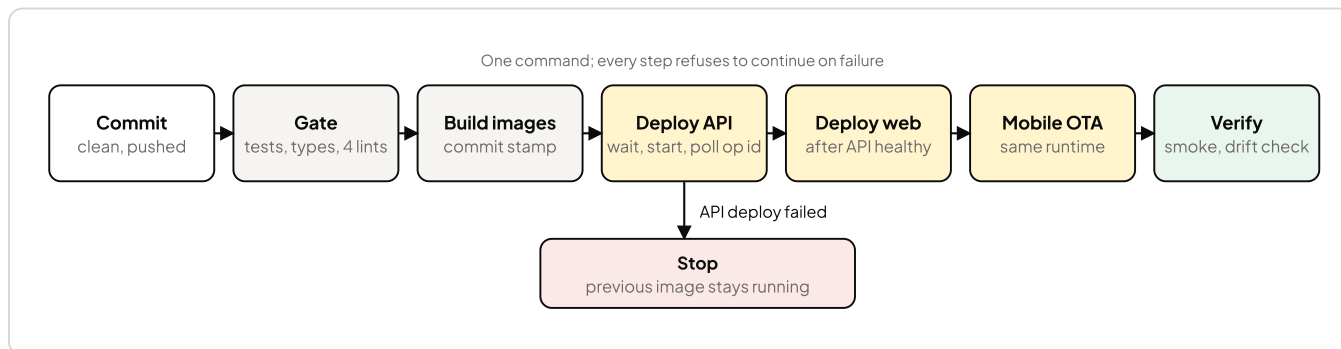


Figure 18. The ship pipeline. The API deploys first and must report healthy before the web; a failed deployment leaves the previous image running. The verify step compares the commit stamp on the running services with the repository.

18.4 Hypercare and support

Table 56. Hypercare (two weeks after go-live)

ITEM	ARRANGEMENT
Daily check (Goudplevier)	09:00: alerts, error rate, payment verifications, yesterday's bookings vs ledger, at-risk games for tonight
Support hours	Owner: player and venue questions by email and WhatsApp 09:00 to 22:00. Goudplevier: defects, same day for Major, next day for Minor
Escalation	Blocker: phone Goudplevier immediately; gate on if money is affected. Provider issues: owner's dashboard first, then provider support with the reference from the ledger
Review	Day 7 and day 14: KPIs (section 2.3) against targets; defect list; decision on ending hypercare
After hypercare	Subscription or ad-hoc requests through the request board; monthly review call

19. RAID log

Table 57. Risks (L = likelihood, I = impact, 1 to 5)

ID	RISK	L	I	MITIGATION	OWNER	STATUS
R-01	Games do not reach minimum in the first weeks; players see cancellations and leave	3	4	Founder-hosted weekly game that never cancels; small formats (5v5) first; venue publishes at proven hours	Owner	Open
R-02	A venue keeps a parallel paper diary and double-books	3	3	Counter mode on a tablet; phone bookings in 10 s; KPI-4 reviewed weekly	Owner	Open
R-03	Payment provider holds a venue's payouts for KYC	2	3	Onboarding in week 4; pending shown transparently; RB-2	Goudplevier	Mitigated
R-04	Single-writer API becomes a bottleneck	1	3	NFR-010 headroom 5x; scaling path in ADR-001	Goudplevier	Accepted
R-05	Store review rejects a build close to launch	3	3	Submit in week 6; sign-in with Apple; review notes prepared	Goudplevier	Occurred (I-03)
R-06	A late-leave money rule is disputed by a venue	2	2	DEC-014 resolved before launch; clause in terms	Owner	Open
R-07	SMS delivery to a carrier fails; players cannot verify	2	3	Registered sender; fallback: staff can mark a phone verified after a call, logged	Goudplevier	Mitigated
R-08	Seeded demo data leaks to the public list	1	4	Launch gate; production reset script; smoke test asserts no demo venue	Goudplevier	Mitigated
R-09	Operator unavailable during a money incident	2	4	Alerts to two phones; runbooks; provider dashboard access for the owner	Owner	Mitigated
R-10	Scope creep after M1	3	3	Change requests traded against Should/Could; weekly demo keeps focus	Both	Mitigated

Table 58. Issues

ID	ISSUE	RAISED	RESOLUTION	STATUS
I-01	Google OAuth client for iOS missing; social sign-in on iOS blocked in week 3	W3	Owner created the client; config in Appendix D	Closed
I-02	Venue could not supply a board price for one pitch in its first session	W4	Next-step card in Diary; price entered in week 5	Closed
I-03	App Store review took 6 working days	W6	Week 7 added; hypercare start moved	Closed
I-04	Mobile update published without the API base URL once (JS bundle inlined an empty value)	W5	Ship script refuses to publish without it	Closed
I-05	Late-leave money rule undocumented in venue terms	W6	DEC-014 pending	Open

Assumptions are in section 3.2 and dependencies in section 3.4.

20. Decision log

Table 59. Product and engagement decisions

ID	DATE	DECISION	OPTIONS CONSIDERED	RATIONALE
DEC-001	W1	Launch in one province of Spain; euro; Spanish default with English from day one	National launch; Spanish only	Density beats reach for a two-sided marketplace; bilingual costs little if built in from the start
DEC-002	W1	Every player journey exists on web and mobile, in sync	Mobile first, web later	Venues and organisers share links; the web is the landing surface
DEC-003	W1	Players 16 and over; no guardian flow	Under-16 with consent	Safeguarding surface too large for v1; the rule is simple to state and enforce
DEC-004	W1	Venue owner collapsed into the organiser role for v1	Separate role	One person at each launch venue; the model keeps an owner id to split later
DEC-005	W1	Charge at booking; refund if cancelled	Authorise and capture at deadline	Simpler to explain; fewer failure modes; the provider supports a hold model later
DEC-006	W2	Intermediary model: booking fee with VAT inside; seat price is the venue's supply	Reseller model	Matches how venues invoice; confirmed by the accountant
DEC-007	W2	Fee 5% clamped €1–€6	Flat €1; percentage only	Covers card costs on small tickets without punishing whole-pitch rentals
DEC-008	W3	One account, many roles; email/Google/Apple; no SMS sign-in; phone verified at first booking	Phone-number login	Store policy requires Apple; SMS at the door adds cost and friction; phone still verified where it matters
DEC-009	W3	Confirm deadline six hours before kickoff; host fallback four hours	Twelve hours; two hours	Venues can re-sell an hour with six hours' notice; players decide the same afternoon
DEC-010	W4	Four rooms in the venue console: Diary, Games, Caja, Your venue	Seven spaces; five rooms	Each room answers one question; every setting has exactly one door
DEC-011	W5	Every online booking paid online; cash only at the venue counter; organiser buys their own seat	Cash for a seat; deposits	Removes collection and no-show disputes; nobody human in the critical path
DEC-012	W5	Leave inside 24 h: seat price returns as credit, fee kept	No refund; full refund	Keeps the player; keeps the venue's hour saleable; matches consumer-law expectations for dated services
DEC-013	W5	Count people on the pitch, not receipts, for the minimum	Count paid seats	A playing host is a body on the grass; the minimum is about the game, not the money
DEC-014	W6	Pending: whether the venue is paid for a seat left inside 24 h	Pay the venue; state in terms that it is not paid	Owner decision; either option is one change (section 12.3)

21. Handover and what comes next

21.1 Handover inventory

Table 60. What the client holds

ASSET	WHERE	ACCESS	NOTES
Source code (monorepo: API, web, mobile, engine, infrastructure)	Client's Git organisation	Owner: admin; Goudplevier: contributor	Branch protection on main; ship script in the repo
Cloud account and infrastructure as code	Client's cloud account	Owner: root (MFA); Goudplevier: deploy role	Stack defined in code; secrets in the secrets store
Payment provider account	Client's account	Owner	Live keys in secrets store only
Domain, DNS, email service, SMS gateway	Client's accounts	Owner	Records documented in Appendix D
App Store and Play Console	Client's developer accounts	Owner; Goudplevier as developer	Certificates and signing managed by the build service
This document, runbooks, harness, walk scripts	Repository docs/	Everyone with repository access	Versioned with the code
Credentials process	-	-	No credential is ever in chat or email; rotation on the day any person's access ends

21.2 Post-MVP backlog (top ten, prioritised)

Table 61. Backlog

#	ITEM	WHY	SIZE
1	Resolve DEC-014 and encode it (payout query or terms)	Removes the only open money ambiguity	XS
2	Staging environment with anonymised data	Rehearse provider and migration changes safely	S
3	Reservations and bookings to relational tables (ADR-001 scaling path)	Needed before a second region or multi-instance API	L
4	FR-039 calendar feed and poster (deferred Could)	Venues asked for the calendar during UAT	S
5	FR-044 extension: passkeys	Fewer password resets	M
6	Venue KPI dashboard (occupancy, revenue by hour, source mix)	KPI-3 and KPI-4 need a venue-facing view	M
7	Multi-venue overview for owners of several centres	Two launch venues share an owner	M
8	Recurring player games (weekly seat)	Repeat rate (KPI-5) lever	M
9	Push on Android via native channel	Web push covers browsers; native adds reliability	S
10	Second province	After KPI-1 at least 70% for four consecutive weeks	L

Appendix A. Glossary

Table 62. Terms

TERM	MEANING
Seat	One place in a game, sold to one player
Slot / hour	One bookable period on one pitch, defined by availability rules
Game	A published fixture at a venue with a format, price and kickoff
Reservation	The hold on a pitch for a period, from any source
Source	Where a reservation came from: app game, phone, counter, weekly club, online rental
Weekly club (fijo)	A standing reservation every week at the same time
Split pitch	A pitch that can be sold whole or as two halves
Host (armband)	The player responsible for one game on the ground
Bodies on the pitch	Booked players plus a playing host with a free seat; the number compared with the minimum
Confirm deadline	Six hours before kickoff, when a game is confirmed or cancelled
Credit	A player's balance, spendable on the next booking
Fee	5% of the seat price clamped to €1–€6, VAT inside
Till (Caja)	The venue's money room: pending, paid, counter takings, statements
Statement	One line per game or rental in a payout
Surface	One of the three sign-in contexts: player, venue console, staff console
Grant	A role a user holds at a venue (owner, co-manager, observer) or on the platform (staff)
Launch gate	A configuration switch that keeps the public site closed except to holders of a preview key

Appendix B. Traceability matrix (Must requirements)

Table 63. Requirement, stories, test cases

REQUIREMENT	STORIES	TEST CASES	RESULT
FR-001	US-001, US-002	TC-001, TC-002	Pass
FR-002	US-002	TC-003	Pass
FR-004	US-003	TC-005, TC-006	Pass
FR-005	US-020	TC-007	Pass
FR-006	US-004	TC-011, TC-013, TC-014	Pass
FR-007	US-007	TC-014, TC-016, TC-017	Pass
FR-008	US-015	TC-024, TC-025	Pass
FR-009	US-010	TC-031	Pass
FR-010	US-010	TC-032	Pass after fix
FR-011	US-004	TC-011, TC-015	Pass
FR-012	US-004	TC-012	Pass
FR-013	US-012	TC-021, TC-023	Pass
FR-014	US-013	TC-021, TC-025, TC-051	Pass
FR-015	US-041	TC-052, TC-053	Pass
FR-016	US-042	TC-054	Pass
FR-017	US-016	TC-026	Pass
FR-018	US-012	TC-021, TC-022	Pass
FR-019	US-017, US-023	TC-022	Pass
FR-020	US-018	TC-028	Pass

REQUIREMENT	STORIES	TEST CASES	RESULT
FR-022	US-020	TC-007, TC-029	Pass
FR-023	US-022	TC-061	Pass
FR-024	US-023	TC-062	Pass
FR-025	US-024	TC-063	Pass
FR-027	US-030	TC-040	Pass
FR-028	US-031	TC-041, TC-042	Pass
FR-029	US-031, US-033	TC-043, TC-044	Pass
FR-030	US-031	TC-045	Pass
FR-031	US-036	TC-046, TC-047	Pass
FR-032	US-041	TC-051	Pass
FR-033	US-043, US-044	TC-095	Pass after fix
FR-034	US-034	TC-048	Pass
FR-037	US-048	TC-070	Pass
FR-038	US-049	TC-072, TC-073	Pass
FR-040	US-051	TC-075	Pass
FR-041	US-052	TC-076	Pass
FR-042	US-053	TC-077	Pass
FR-043	US-054	TC-071	Pass
FR-044	US-055, US-056	TC-081 to TC-084	Pass
FR-045	US-010	TC-085, TC-093	Pass
FR-046	US-060	TC-090	Pass

Appendix C. Notification catalogue

Table 64. Notifications (28)

EVENT	RECIPIENT	CHANNELS	TEMPLATE
Booking confirmed	Player	email, push, in-app	bookingReceipt
Game confirmed	Roster	email, push, in-app	gameConfirmed
Game cancelled + refund	Roster	email, push, in-app	gameCancelled
Refund issued	Player	email, in-app	refundIssued
Credit issued	Player	email, in-app	creditIssued
Waitlist offer	Player	email, push, in-app	waitlistOffer
Warm-up ready	Player	push, in-app	warmupReady
MVP result	Roster	push, in-app	mvpResult
Host invitation / accepted / handed over	Host, venue	push, in-app	armband*
A game is about to have no host	Venue, then staff	email, in-app	armbandWarning
Seat sold	Venue	in-app, email (digest)	bizSeatSold
Hour rented	Venue	email, in-app	rentalBooked
Rental released	Renter, venue	email	rentalReleased
Payouts activated	Venue owner	email	payoutsActivated
Payout sent	Venue owner	email, in-app	payoutSent
Yesterday at your venue	Venue owner (opt-in)	email	bizDigest
Venue application received / approved / info requested / rejected	Applicant	email	venue*
Team member added	New member	email	managerAdded

EVENT	RECIPIENT	CHANNELS	TEMPLATE
Phone verification code	Player	SMS	sms.code
Password reset / changed; phone changed	Account	email	account*
New follower; favourite venue published a game	Player (opt-out)	push, in-app	social*

Appendix D. Configuration reference (names only)

Table 65. Runtime configuration

NAME	PURPOSE	WHERE SET
ENVIRONMENT	production disables dev routes, impersonation and code echo	Service definition
DATABASE_URL	Snapshot store connection	Secrets store
MEDIA_BUCKET, MEDIA_BASE_URL	Object storage and CDN base	Service definition
PAYMENTS_SECRET_KEY, PAYMENTS_WEBHOOK_SECRET	Provider access and webhook verification	Secrets store
EMAIL_FROM, EMAIL_REPLY_TO, EMAIL_CONFIGURATION_SET	Transactional email identity	Service definition
SMS_ACCOUNT, SMS_TOKEN, SMS_FROM	Verification codes	Secrets store
GOOGLE_CLIENT_IDS, APPLE_CLIENT_IDS	Audiences accepted for social sign-in	Service definition
LAUNCH_GATE, PREVIEW_KEY	Public site closed / preview access	Service definition (web)
HOLD_UNTIL_CONFIRMED	Alternative charge model; off in v1	Service definition
DEV_CLOCK_OFFSET_MIN	Time travel; development only	Local

Operator commands (documented in the repository, names only): 1 ship: gate, build, deploy, publish, verify; 2 status: drift and gate state; 3 reset-demo: development world; 4 payout-rerun: re-run one venue’s batch with the same idempotency key; 5 export-account: data-portability export; 6 erase-account: right to erasure.