

Payments Operating System

Transparent infrastructure for online businesses

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This overview outlines Fluxa’s mission, architecture, product, and roadmap. Fluxa is under active development. Components may evolve as the product is tested and deployed.

SECTION 01

Introduction

Online payments are broken. Not at the infrastructure level. Money moves. But at the experience level, merchants face unpredictable fees, opaque payout timing, slow refunds, impersonal support, and zero visibility into what happens between a customer paying and the merchant receiving funds.

Fluxa exists to fix this. It is not a cheaper payment processor. It is built to be the most transparent, most reliable, and most merchant-centric payments operating system available. Every component, from checkout to dashboard to operations, is designed to be the best of its kind.

Fluxa is a UK-registered company built for online businesses that demand predictable flat-rate fees with zero hidden charges, explicit payment states they can see, track, and audit, a dashboard that answers any question about their payments within seconds, AI-assisted operations that explain everything they flag, and real human support from people who understand their business.

Customers pay normally with their card, Apple Pay, or Google Pay. No account creation. No friction. Fluxa is invisible to the end customer.

Every fee is visible. Every payment state is explicit. Every decision is logged. Every payout is traceable. This is what payments should look like.

What Fluxa is not. Fluxa is not a bank, not a card scheme, not a regulated payment institution. Fluxa is an orchestration layer that sits on top of regulated acquiring infrastructure, providing the merchant experience, intelligence, and operations that processors do not.

2%

0

7

UK

FLAT RATE HIDDEN FEES PAYMENT STATES REGISTERED

SECTION 02

The Problem

Most online businesses operate within payment systems that are fragmented, opaque, and frustrating.

Unpredictable Fees

Base rates layered with fixed per-transaction fees, cross-border uplift, FX spreads, chargeback fees, and add-ons. Actual cost is unknowable in advance. Stripe UK charges a headline rate of 1.5% + 20p, but the effective rate for a typical UK SaaS business typically lands between 2.3% and 2.8%.

Opaque Payouts

Settlement takes days with no clear schedule. When funds are held, there is rarely an explanation. Merchants cannot tell whether their money is in transit, held for review, or lost.

Painful Refunds

Processing takes days. Merchants often pay fees on refunded transactions. There is no lifecycle tracking and no protection against double refunds.

Black-Box Disputes

Chargebacks arrive with no guidance. Representment is confusing. Outcomes feel arbitrary. Scheme fees are hidden.

Impersonal Support

Ticket systems, chatbots, days-long response times. No one at the processor knows who the merchant is or what their business does.

No Operational Intelligence

Dashboards show transactions but provide no insight, no predictions, no proactive alerts. Merchants only discover problems after customers complain.

These are not edge cases. They are the default experience for the majority of online businesses using mainstream payment processors today.

SECTION 03

The Fluxa Solution

Fluxa is a payments operating system built on top of regulated acquiring infrastructure. The acquiring partner handles the regulated card processing and settlement. Fluxa provides the merchant experience, risk management, automation, operational intelligence, and support layer.

The acquiring partner settles payments. Fluxa orchestrates everything around them. Merchants deal with Fluxa. Fluxa deals with the plumbing.

Flat-Fee Pricing

1.8% flat per transaction for founding merchants, locked for 12 months. 2% flat standard rate. No fixed per-transaction fee. No cross-border uplift. No monthly minimum. No refund fee. No chargeback markup. The number on the pricing page is the number on the invoice.

Explicit Money States

Every payment moves through seven defined states. Each transition is enforced, logged, and permanent. You cannot skip steps. Every state change records the operator identity, timestamp, and reason.



Additional terminal states: REFUNDED and FAILED. Every transition is immutable and auditable.

Hosted Checkout

Built from scratch. Visa and Mastercard accepted. Apple Pay and Google Pay supported. Mobile-first, fast, and conversion-optimised. Hosted on pay.fluxapay.co.uk. Card data never touches Fluxa servers.

Full-Visibility Dashboard

Real-time transaction feed, revenue and payout tracking, AI insights, trust score, payment timeline, and a command palette for instant search. Designed so a merchant can answer any question about their payments within 10 seconds.

SECTION 03 CONTINUED**AI-Assisted Operations**

Anomaly detection watches for unusual patterns, failed settlements, and stuck payouts. Inbox triage with severity scoring. Plain-English explanations for every insight. Proactive alerts surface issues before merchants notice them.

Named Human Support

Real people with merchant context from the first message. Not a chatbot-first flow. Proactive check-in after the first transaction. Post-incident summaries when issues arise.

Concurrent Safety & Full Audit Trail

Bank-grade idempotency on all write operations. Row-level locking ensures exactly one payout executes even under race conditions. Every action logged with operator IDs, timestamps, and complete state history. Evidence export bundles for regulatory and acquiring partner audit.

A merchant can open their dashboard, find any transaction, see every state it passed through, who approved each transition, when, and why. No mystery. No hidden charges. No waiting for support.

SECTION 04**How Fluxa Works****Customer Experience**

Customers pay with their card, Apple Pay, or Google Pay through a hosted checkout page. No Fluxa account needed. No redirects. Payment confirmation is immediate.

Merchant Experience

Merchants see every payment move through explicit states in real time. Operators approve settlements, queue payouts, and manage refunds through deliberate actions with clear audit trails.

Infrastructure

Payment processing is handled by a regulated acquiring partner. Fluxa manages the merchant experience, checkout, risk assessment, state machine, ledger, automation, reconciliation, AI operations, and communication. The abstract acquiring interface means the underlying partner can be changed without affecting merchants.

SECTION 05

The Product

Built, not planned. These are real screenshots from the production Fluxa checkout and merchant dashboard. Not mockups. Not wireframes. Working software.

The screenshot displays the Fluxa Merchant Dashboard. On the left is a navigation menu with options: Overview, Payments, Payouts, Customers, Refunds, Trust Score, Developers, and Settings. The main content area is titled 'Overview' and includes a search bar, a 'LIVE' indicator, and a 'Good evening' greeting. It shows that 4 payments were taken today for a net amount of £519.39, with a trust score of A (89) and 2 months until faster payouts are unlocked. Key metrics are displayed: Revenue Today (£529.99), You Keep (£519.39), and Success Rate (85.7%). A 'NEXT PAYOUT' box shows £2,120.00, with 34 payments scheduled from 1-4 Mar, arriving in 2h 14m. Below this, 'AI Insights' provides data points such as Friday sales being 38% higher than the weekly average and a refund rate drop to 1.2%. A live transaction feed at the bottom shows a payment of £49.99 received.

The screenshot shows the Fluxa Hosted Checkout page for Acme Corp. The total amount is £49.99 for a Pro Plan - Annual subscription, which expires in 29:54. Payment options include Apple Pay and Google Pay, with a 'or pay with card' link. The card details section shows a card number (1234 1234 1234 1234), a Visa logo, and fields for MM/YY and CVC. A 'Pay £49.99' button is at the bottom.

Checkout: Visa, Mastercard, Apple Pay, Google Pay. Mobile-first, conversion-optimised. Card data never touches Fluxa servers. Hosted on pay.fluxapay.co.uk.

Dashboard: A merchant can open this page and answer any question about their payments within 10 seconds. Revenue today, net after fees, success rate, next payout, AI insights, and a live transaction feed.

These screenshots run on the same ledger and state machine described in this document. The data shown is from the Fluxa sandbox. Every calculation, state transition, and payout flow works identically in production.

SECTION 06

Architecture

Deterministic State Machine

Every payment enters as PAYMENT_RECEIVED and can only move through valid transitions. Invalid transitions rejected. Every transition logged with operator identity, timestamp, and reason.

Double-Entry Ledger

Every financial movement recorded as a double-entry posting. Four transitions wired with SQL aggregate balances and an integrity checker. Independent of the state machine for second-layer verification.

Concurrent Safety

Row-level locking in Postgres (Neon Cloud). Idempotency keys prevent duplicate processing. Two-man rule on irreversible actions with typed confirmation gates and dry-run preview.

Operator Model

Token-based auth with session management, role-based access, idle timeout, and IP-based lockout. Every action tied to an operator identity. Rate limiting per operator and per endpoint.

Pricing Engine

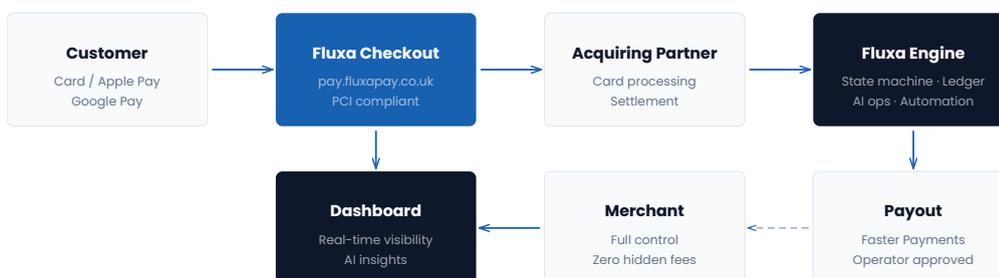
Flat-fee pricing calculated per merchant. Supports founding (1.8%) and standard (2%) rates with automatic application based on merchant configuration. Fee breakdowns visible per transaction.

API Architecture

RESTful API with merchant CRUD, API key management, payment stack, and operator controls. Universal response envelope enforced. Full correlation from checkout to payout.

Security Hardening

Content-type enforcement, prototype pollution guards, Sec-Fetch-Site validation, parameter pollution prevention, request timeout protection, circuit breaker on external service failures, and immutable action snapshots. 12+ middleware layers protecting every route.



PCI compliance by design. Card data never touches Fluxa servers. The hosted checkout communicates directly with the acquiring partner's tokenisation service. Fluxa handles only tokenised references, never raw card numbers. This eliminates the most complex and expensive compliance requirements.

SECTION 07

Pricing

Fluxa charges a flat percentage per transaction. Nothing else.

1.8% flat

Founding Merchant Rate

Invite-only. Locked for 12 months.

2% flat

Standard Rate

Same terms. Same transparency.

- × Per-transaction fee
- × FX fee
- × Monthly minimum
- × Refund fee
- × Cross-border uplift
- × Chargeback markup

The Effective Rate Gap

Stripe UK charges a headline rate of 1.5% + 20p, but the effective rate after surcharges, international card fees, and add-ons typically lands between 2.3% and 2.8% for UK SaaS businesses. Fluxa's rates are genuinely flat. The number on the pricing page is the number on the invoice.

MONTHLY VOLUME	FLUXA FEE (2%)	TO MERCHANT
£100,000	£2,000	£98,000
£250,000	£5,000	£245,000
£500,000	£10,000	£490,000

The standing offer: send us a screenshot of your Stripe fees for any month and we will calculate your effective rate in 30 seconds. No pitch. Just the maths.

No contract lock-in. Founding merchant rates are locked for 12 months, but there is no minimum term and no exit fee. If Fluxa does not save you money or improve your operations, you can leave at any time. We earn your business monthly.

SECTION 08

Development Status

Fluxa is in active development with a private sandbox. The core engine is complete and tested.

1,325

AUTOMATED TESTS

16

TEST SUITES

0

FAILURES

7

PAYMENT STATES

Completed Infrastructure

Deterministic payment state machine with seven explicit states, sub-second transitions, and full idempotency

Double-entry ledger engine with four transitions wired, SQL aggregate balances, and integrity checker

Postgres migration to Neon Cloud with row-level locking for concurrent safety

Merchant-aware pricing engine supporting founding and standard rates

Merchant CRUD routes and API key management (57 tests)

Payment stack with 185 tests covering the full payment lifecycle

Operator infrastructure: token-based auth, session management, RBAC, idle timeout, IP lockout

Hosted checkout backend and frontend (complete, production and preview synced)

Visa and Mastercard for UK launch. Apple Pay and Google Pay included

Unified ops inbox, anomaly management, suppression rules, incident tracking

AI assistive layer: inbox triage, anomaly detection, plain-English summaries, rate-limited alerts

Autonomous payout engine with dry-run preview, two-man rule, typed confirmation gates

Security hardening: 12+ middleware layers, circuit breakers, rate limiting

Abstract acquiring interface and sandbox adapter with Luhn validation and decline codes

SECTION 08 CONTINUED

Completed Go-to-Market

- Production website live at fluxapay.co.uk with real product screenshots
- Hosted checkout and merchant dashboard rendered from real React components
- 13-page partner prospectus PDF
- Master target list of 274 UK businesses across 55 non-refundable categories
- Cold email and LinkedIn outreach templates with 14-day posting plan
- Brand assets: 4K diamond icon, wordmark, brand video

First batch of cold emails sent to UK SaaS founders. Acquiring rails partnership conversation initiated.

SECTION 09

Target Market

Fluxa is built for UK-based businesses processing card-not-present transactions in non-refundable categories.

Primary segments: SaaS subscriptions, digital products, events and ticketing, professional services, memberships, online education, and software licensing.

These categories share characteristics that align with Fluxa's strengths: recurring or predictable revenue, low chargeback rates, higher average transaction values, and merchants who value transparency and reliability over having 200 payment methods they will never use.

Initial target: 10 to 20 founding merchants in the UK, processing between £10,000 and £500,000 per month, currently on Stripe or a similar processor, and open to evaluating their effective rate.

Fluxa does not chase volume. We are looking for merchants who care about transparency, reliability, and knowing exactly where their money is at all times. If that describes your business, we want to talk to you.

SECTION 10

Roadmap

- **Phase 1: Foundation** COMPLETE
Core engine, state machine, ledger, operator model, API architecture, security hardening. 1,325 tests passing. Sandbox operational.
- **Phase 2: Product & Go-to-Market** CURRENT
Hosted checkout complete. Dashboard built. Website shipped. Partner prospectus complete. Cold outreach begun. Acquiring rails partnership in progress.
- **Phase 3: Launch**
Acquiring partner integration. Pilot with 5–10 UK merchants. Dashboard wired to live API. 3D Secure and SCA. Daily settlement with Faster Payments.
- **Phase 4: Growth**
AI predictive layer: risk scoring, forecasting, anomaly prediction. Full mobile experience. Public status page. API docs portal. Developer community. Subscription billing and payment links.
- **Phase 5: Scale**
Geographic expansion and multi-currency. Trust scores, risk rules engine, incident reports. Marketplace payout splitting. Migration assistant for merchants switching processors.

Sequencing is deliberate. Each phase depends on the one before it. We do not announce features until the engineering is complete and tested. The roadmap reflects what we are building, not what we hope to build.

Fluxa will never have a “coming soon” page for a feature that has not been built. If it is on the website, it works. If it is on the roadmap, it is planned and scheduled.

Current focus: Acquiring rails partnership, merchant dashboard wired to live API, first 5–10 founding merchants onboarded. Target: first live transaction by Q2 2026.

SECTION 11

Transparency & Trust

Fluxa prioritises long-term credibility over short-term growth. Transparency is not a feature. It is the product.

Explicit money states. Every payment moves through defined states. No mystery about where money is at any point. **Full audit trail.** Every action logged with operator identity, timestamp, and reason. **Zero hidden fees.** The fee on the pricing page is the fee on the invoice. **AI explainability.** Every AI decision produces a plain-English explanation.

Build in public. This document, the website, and social media reflect the real state of the product. **Human approval required.** Every transfer reviewed by an operator before money moves. **No black boxes.** Anomaly detection explains its reasoning. **Open about our stage.** Pre-revenue, bootstrapped, building in public. We do not fabricate social proof.

The Team

Fluxa is built by its co-founders. Paul builds the product, brand, code, and go-to-market. His partner brings a background in banking, operations, and events. Fluxa is bootstrapped with no external funding. Every line of code, every design decision, and every business relationship is handled directly by the founders.

Legal

This document is for informational purposes only. It is not financial advice, not an investment invitation, and not a prospectus. Fluxa Ltd is registered in England and Wales. Fluxa operates on top of regulated acquiring infrastructure provided by licensed payment partners. Fluxa is not itself a regulated payment institution. Information in this document reflects current development and may change.

fluxa

Watch your money move.

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