Product Requirements Document

Document Title: AtlasPay Mobile Checkout v2
Version: 2.0
Date: May 25, 2026
Author: ________________
Status: Draft

---

1. Executive Summary

AtlasPay Mobile Checkout v2 is a comprehensive redesign of the mobile payment flow aimed at reducing user friction and improving overall conversion rates. By introducing one-tap checkout capabilities and seamless biometric authentication, this update will streamline the purchase process for returning users while maintaining strict security standards.

2. Problem Statement

The current AtlasPay mobile checkout flow requires users to navigate through four distinct screens and manually input authentication credentials for every transaction. Analytics indicate a 35% cart abandonment rate occurring specifically at the payment authorization step on mobile devices. Returning users find the manual entry tedious, leading to lost revenue for our merchant partners and decreased user satisfaction.

Target Users: Existing AtlasPay account holders purchasing physical or digital goods on mobile web and native applications.

3. Goals & Success Metrics

- **Primary Goal:** Increase mobile checkout conversion rate by 15% within 60 days of general availability.
- **Secondary Goal:** Reduce average checkout completion time from 42 seconds to under 15 seconds for returning users.
- **KPI 1:** Biometric authentication adoption rate (Target: >60% of eligible users).
- **KPI 2:** Cart abandonment rate at the payment step (Target: <20%).

4. User Stories

- **As a returning user**, I want to authenticate my payment using FaceID/TouchID, so that I do not have to remember or type my password in public.
- **As a mobile shopper**, I want my default shipping and payment methods pre-selected, so that I can complete my purchase with a single tap.
- **As a merchant**, I want the checkout interface to load instantly, so that customers do not drop off due to network latency.

5. Requirements

Functional Requirements

Req ID	Description	Priority	Target Release
REQ-F-01	Implement WebAuthn for biometric authentication (FaceID/TouchID/Android Biometrics) during the payment authorization step.	P0	v2.0
REQ-F-02	Introduce a "One-Tap Pay" button for returning users with a saved default payment method and shipping address.	P0	v2.0
REQ-F-03	Provide a seamless fallback to PIN/Password authentication if biometric verification fails or is declined by the user.	P0	v2.0
REQ-F-04	Display a dynamic order summary overlay that expands from the bottom of the screen without navigating away from the checkout context.	P1	v2.0
REQ-F-05	Allow users to manage (add/edit/delete) saved payment methods directly from the checkout overlay.	P2	v2.1

Non-Functional Requirements

Req ID	Description	Priority	Category
REQ-NF-01	Checkout overlay must render and become interactive in < 800ms on a standard 4G connection.	P0	Performance

Req ID	Description	Priority	Category
REQ-NF-02	All biometric data processing must remain strictly on-device (FIDO2 compliant); no biometric data is transmitted to AtlasPay servers.	P0	Security
REQ-NF-03	The interface must meet WCAG 2.1 AA accessibility standards, ensuring full screen-reader compatibility.	P1	Accessibility

Analytics Events

> - `checkout_sheet_invoked`: Triggered when the v2 overlay is called.
> - `biometric_prompt_shown`: Triggered when OS-level biometrics are requested.
> - `biometric_auth_success` / `biometric_auth_failed`: Outcome of the authentication attempt.
> - `payment_submitted`: Triggered when the user initiates the transaction.

6. Out of Scope

- Desktop web checkout redesign (scheduled for Q4).
- Support for cryptocurrency payments.
- Modifications to the merchant dashboard or reporting APIs.
- Guest checkout flow optimizations (v2 focuses purely on authenticated/returning users).

7. Dependencies & Risks

Dependencies:

- **Risk API v3:** Required for the new real-time fraud scoring model during one-tap checkout. Target completion: June 5, 2026.
- **Apple Pay / Google Pay SDK Updates:** Must integrate the latest SDKs to ensure tokenization compatibility.

Risks:

- Biometric Fallback Failure: If the OS fails to trigger the PIN fallback smoothly, users may be locked out of completing their purchase. Mitigation: Rigorous device-farm testing across iOS 16+ and Android 13+.
- Merchant Integration Friction: Existing merchants using custom CSS overrides for the v1 iframe may experience visual breaking changes. Mitigation: Provide a 60-day deprecation window and backwards-compatible integration flags.

8. Timeline & Milestones

Milestone	Target Date	Description
Design Freeze	June 1, 2026	Final approval on UX/UI flows and accessibility review.
Alpha Release	June 15, 2026	Internal testing and integration with staging environments.
Beta Release	July 1, 2026	Rollout to 5% of traffic across select pilot merchants.
General Availability (GA)	July 20, 2026	100% rollout to all supported merchants.

9. Open Questions

1. Do we mandate 3D Secure (3DS) step-ups for transactions over $500 even if biometric authentication succeeds?
2. How will the checkout sheet handle edge cases where the user's default shipping address is no longer supported by the merchant's updated delivery zones?
3. ____