

SERVA

Business Requirements Specification

Payments, Wallet & SoftPOS Roadmap

Phased delivery: Tembo → Serva Wallet → SoftPOS

Document Control

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1. Executive Summary

SERVA is introducing a three-phase expansion of its payments capability to reduce processor dependency, create a new transactional revenue stream, and enable vendors at events to accept card payments without third-party terminals.

Phase 1 — Payment Processor Migration. Replace Yoco with Tembo Group as the primary payment processor, and enable Apple Pay and Google Pay at checkout from day one. Tembo holds a payments licence that allows facilitation of multiple payment types (card, EFT, wallet, mobile wallets), giving SERVA a single integration point for current and future payment methods.

Phase 2 — Serva Wallet. Introduce customer wallets with an associated Mastercard or Visa virtual card (via a card issuer partner and sponsor bank). Customers can top up once and spend inside and outside the SERVA app — anywhere the card scheme is accepted.

Phase 3 — SERVA SoftPOS. Enable vendors at events to accept contactless card payments using only a tablet or phone (tap-to-pay on device), removing the need for dedicated card machines and giving SERVA control of the in-venue payment experience.

Each phase builds on the previous: Tembo provides the acquiring rails used by the Wallet and SoftPOS; the Wallet gives customers a funded instrument that can be preferred at SoftPOS terminals; SoftPOS extends SERVA's reach to vendors who do not yet transact through the app.

2. Background & Context

2.1 Current State

SERVA is a mobile food-ordering app for live events and venues, available on iOS, Android, and web. Customers browse events, pick a vendor, order from a menu, pay, and track the order without queuing. Payments today are processed through Yoco via a Supabase edge function; the checkout is opened in a WebView on native and via redirect on web.

2.2 Drivers for Change

- Reduce single-processor dependency and negotiate better commercial terms under a payments-licensed partner.
- Unlock multiple payment methods (card, EFT, instant EFT, wallet top-ups) through one integration.
- Create a closed-loop + open-loop spend environment: customers preload funds into SERVA and can still spend those funds outside the app via a virtual card.
- Give vendors a SERVA-branded way to accept card payments at events without importing third-party terminals, simplifying onboarding and settlement.
- Build a data and loyalty moat — every wallet and SoftPOS transaction strengthens SERVA's understanding of customer spend at events.

2.3 Out of Scope

- Vendor / organiser admin surfaces (handled in a separate system).
- International markets and currencies beyond ZAR in the initial release.
- Physical card issuance (virtual card only in Phase 2).
- Credit, lending, or buy-now-pay-later products on the wallet balance.

3. Objectives & Success Metrics

3.1 Strategic Objectives

- Consolidate payments under a licensed partner (Tembo) with room to add methods over time.
- Launch a SERVA-branded stored-value product (Wallet + virtual card) usable inside and outside events.
- Equip vendors with a zero-hardware card acceptance option (SoftPOS) that SERVA owns end-to-end.
- Improve unit economics by earning interchange and acquiring margin in addition to platform fees.

3.2 Success Metrics

Phase	Metric	Target (first 12 months post-launch)
Phase 1 — Tembo	Checkout success rate	≥ current Yoco baseline
Phase 1 — Tembo	Average processor fee per transaction	Lower than current Yoco effective rate
Phase 1 — Tembo	Payment methods supported at launch	Card + Apple Pay + Google Pay + at least one alternative (EFT or wallet)
Phase 1 — Tembo	Share of checkouts via Apple Pay / Google Pay	≥ 20% of successful checkouts within 3 months of launch
Phase 2 — Wallet	Customers with a funded wallet	≥ 25% of monthly active users
Phase 2 — Wallet	Share of in-app orders paid by wallet	≥ 40% of orders from wallet holders
Phase 2 — Wallet	Virtual-card off-platform spend	Measurable monthly volume with month-on-month growth
Phase 3 — SoftPOS	Vendors enabled on SoftPOS	Majority of active event vendors
Phase 3 — SoftPOS	In-venue card volume captured by SERVA	Meaningful share of total vendor card volume at enabled events

4. Stakeholders

Stakeholder	Interest in this BRS
Executive / Board	Investment case, commercial impact, risk posture, regulatory exposure.
Product & Engineering	Scope, sequencing, integration touch-points with the existing Expo / Supabase codebase.
Finance & Treasury	Settlement flows, float management, reconciliation, reporting.
Legal & Compliance	Licensing, FICA/KYC, POPIA, PCI DSS, card scheme rules.
Tembo Group	Commercial terms, integration boundaries, certifications needed for each phase.
Card issuer / sponsor bank	BIN sponsorship, programme management, KYC, card scheme compliance.
Event organisers	Cashless experience at venues, reporting, settlement timelines.
Vendors	Low-friction card acceptance, fair fees, fast payout.
Customers	Fast, trusted payments; flexible funding; clear refund and dispute handling.

5. Phase 1 — Replace Yoco with Tembo Group

5.1 Goal

Migrate SERVA's primary payment processor from Yoco to Tembo Group without degrading the customer experience, expand the set of supported payment methods on a single integration, and introduce Apple Pay and Google Pay as first-class checkout options on iOS, Android, and web.

5.2 Business Requirements

1. Tembo shall replace Yoco as the acquirer for all customer-to-SERVA payments in the app.
2. Checkout shall continue to support card payments in ZAR at minimum, with the ability to enable additional methods (e.g. EFT, instant EFT, wallet rails) without a second integration.
3. Apple Pay shall be available as a checkout option on iOS and on the web when accessed from a supported Apple device and browser.
4. Google Pay shall be available as a checkout option on Android and on the web when accessed from a supported browser.
5. Apple Pay and Google Pay shall be presented prominently at checkout — visible without scrolling — whenever the device supports them and the customer has a provisioned card.
6. Apple Pay and Google Pay transactions shall authorise through Tembo as acquirer and flow through the same order, refund, and reconciliation pipelines as card transactions.
7. The user-facing checkout flow shall remain equivalent to or better than today (minimum steps, mobile-optimised, clear failure messaging).
8. SERVA shall retain the three existing return states — success, cancel, failure — and the corresponding deep-link / redirect behaviour on native and web.
9. Refunds (full and partial) shall be supported and initiated from SERVA's operations tooling, not only from Tembo's dashboard.
10. Settlement and reporting shall reconcile per event, per vendor, and per payment method to at least the granularity available today.
11. PCI DSS scope shall be minimised by keeping card data entry inside Tembo-hosted surfaces (hosted fields or hosted page).
12. A documented fallback or dual-running window shall exist to protect live events during cutover.

5.3 In Scope

- Server-side integration with Tembo (replacing the current Yoco edge-function path).
- Client updates in the Expo app to handle Tembo's hosted checkout on native (WebView) and web (redirect).

- Apple Pay integration on iOS and Safari, including merchant identifier and domain verification.
- Google Pay integration on Android and supported browsers, including merchant onboarding with Google.
- Webhook / callback handling for payment status updates.
- Refund flow and operations tooling.
- Reconciliation and reporting for finance.
- Cutover plan, including a parallel-run period if required.

5.4 Out of Scope (this phase)

- Wallet balances and virtual card (Phase 2).
- In-person card acceptance by vendors (Phase 3).
- Any change to the vendor/organiser admin system.

5.5 Key Assumptions

- Tembo's payments licence and certifications cover the payment methods SERVA intends to enable at launch.
- Tembo supports a hosted checkout surface suitable for both WebView and browser redirect.
- Tembo is certified to process Apple Pay and Google Pay transactions in ZAR, or can be certified within the Phase 1 timeline.
- SERVA can complete the required Apple Pay merchant registration and Google Pay merchant onboarding before launch.
- Commercial terms with Tembo are at least as favourable as Yoco on a blended basis.

5.6 Risks

Risk	Mitigation
Checkout regression during cutover causes lost orders at a live event.	Feature-flag the new processor; run a soft launch at a low-traffic event; keep Yoco available as fallback for a defined window.
Webhook reliability differs from current integration, causing mis-matched order states.	Idempotent server-side handlers, reconciliation job, alerting on stuck orders.
Dispute and chargeback processes differ.	Update internal runbooks and agree SLAs with Tembo before go-live.
Apple Pay or Google Pay onboarding (domain verification, merchant registration) delays the launch.	Start registrations in parallel with the Tembo integration; confirm Tembo's certification status early; treat each wallet as an independent launch item under the same phase.

5.7 Acceptance Criteria (high-level)

- All new orders route through Tembo by default.
- Success, cancel, and failure paths behave identically across iOS, Android, and web.
- A customer on a supported iOS device can complete an order using Apple Pay without entering card details.
- A customer on a supported Android device can complete an order using Google Pay without entering card details.
- Apple Pay and Google Pay are also available on the web where the browser and device support them.
- Finance can produce a daily reconciled settlement report per event and per vendor.
- Operations can issue full and partial refunds without logging into Tembo directly.
- At least one payment method in addition to card is live, or configured and ready to enable.

6. Phase 2 — Serva Wallet & Virtual Card

6.1 Goal

Give every SERVA customer an in-app wallet they can top up and spend — inside SERVA for event orders, and outside SERVA anywhere Mastercard or Visa is accepted — via an associated virtual card.

6.2 Business Requirements

13. Every verified SERVA customer shall be able to open a Serva Wallet denominated in ZAR.
14. Customers shall be able to top up the wallet through the payment methods enabled in Phase 1 (card, EFT, etc.).
15. The wallet shall be usable as a first-class payment method at checkout inside the SERVA app.
16. Each wallet shall be linked to a virtual card issued by a Mastercard or Visa card issuer (sponsor bank), usable anywhere the scheme is accepted.
17. Customers shall be able to view the virtual card details, freeze/unfreeze it, and view a unified transaction history (wallet + card) in-app.
18. Customers shall complete KYC/FICA checks before the wallet can hold funds above regulator-permitted thresholds or before the virtual card can be used off-platform.
19. Wallet funds shall be held in a segregated, safeguarded account as required by the sponsor bank and applicable regulations.
20. Refunds for SERVA orders paid by wallet shall return to the wallet; refunds paid by card may return to the original card or the wallet, per policy.
21. SERVA shall provide clear terms for balance expiry, inactivity, and closure, aligned to South African consumer protection rules.
22. All wallet and card activity shall be monitored for fraud and AML in line with sponsor-bank requirements.

6.3 In Scope

- Wallet data model and balance management (single ZAR balance per customer).
- Top-up flows using Phase 1 payment methods.
- Virtual card issuance, controls (freeze, limits), and display in-app.
- KYC/FICA integration with the sponsor bank or a KYC provider.
- Unified transaction history and statements.
- Customer support flows for disputes on both wallet top-ups and off-platform card transactions.

6.4 Out of Scope (this phase)

- Physical cards, peer-to-peer transfers, and multi-currency balances.
- Interest-bearing balances, credit lines, or overdraft.

- Merchant-initiated recurring payments from the wallet (unless specifically required).

6.5 Key Assumptions

- A sponsor bank and issuer partner can be contracted under a BIN-sponsorship / programme-management model.
- Tembo's rails can be used for top-ups and for settlement into the safeguarded wallet account.
- Customers will tolerate a KYC step in exchange for off-platform spend.

6.6 Risks

Risk	Mitigation
Regulatory classification of the wallet (e-money / stored value) requires specific licensing posture.	Legal review with issuer and regulator; structure the programme under the sponsor bank's licence.
Fraud on the virtual card damages trust and creates chargeback exposure.	Card controls by default (low limits, freeze on inactivity), velocity checks, 3DS for online use, strong device binding.
KYC friction reduces adoption.	Tiered KYC: light wallet with low limits for in-app spend, full KYC required only for virtual-card off-platform use.
Safeguarding and reconciliation errors.	Daily reconciliation between ledger, sponsor bank account, and card transactions; automated alerts on mismatches.

6.7 Acceptance Criteria (high-level)

- A customer can top up, check balance, pay for an order, and receive a refund — all within the app.
- A customer who completes full KYC is issued a working virtual card and can transact at a third-party merchant.
- The customer can freeze/unfreeze the card, and the change is reflected at the next card authorisation.
- Finance can reconcile the wallet ledger to the safeguarded bank account daily.
- Support can trace any customer-reported transaction to a specific authorisation and settlement record.

7. Phase 3 — SERVA SoftPOS (Tap-to-Pay on Device)

7.1 Goal

Give vendors at SERVA events the ability to accept contactless card payments using only an Android tablet or phone — no standalone card terminal required — with settlement and reporting flowing through SERVA.

7.2 Business Requirements

23. Vendors shall be able to accept contactless Mastercard, Visa, and other supported scheme cards on an Android device using SoftPOS (tap-to-pay on device).
24. SoftPOS acceptance shall be available through a SERVA-branded app or module, certified under the relevant PCI standards (PCI MPoC or equivalent).
25. Transactions shall authorise through Tembo as acquirer, so reporting and settlement are consistent with Phase 1 and Phase 2 flows.
26. Vendors shall be onboarded through a SERVA-controlled merchant onboarding flow, including KYC/KYB.
27. SERVA shall produce per-vendor, per-event, per-day settlement reports and handle payouts to vendors on an agreed schedule.
28. SoftPOS shall support at minimum: sale, void (same-day), and refund (linked to an original transaction).
29. Receipts shall be available digitally (SMS, email, or QR to a hosted receipt), with printed receipts optional via a paired printer.
30. The solution shall operate in typical event conditions, including intermittent connectivity, with a clear policy on offline behaviour (decline vs store-and-forward).
31. Customers paying with a Serva Wallet virtual card at a SoftPOS terminal shall receive a seamless, SERVA-recognisable experience (e.g. enriched receipt, in-app record).

7.3 In Scope

- SoftPOS-capable Android application (SERVA-branded) integrated with Tembo.
- Vendor onboarding, KYC/KYB, and device binding.
- Transaction, void, and refund flows.
- Settlement, payout, and reporting for vendors and event organisers.
- Support runbooks and training materials for on-site vendor staff.

7.4 Out of Scope (this phase)

- Dedicated SERVA hardware terminals.
- iOS-based tap-to-pay (treated as a later enhancement, subject to platform availability and certification).
- Chip-and-PIN acceptance without a reader.

- Non-card acceptance methods at the terminal (may be added later once Tembo enables them).

7.5 Key Assumptions

- Tembo supports, or can support, a SoftPOS acquiring product with the required scheme certifications.
- The target vendor devices meet the SoftPOS solution's hardware and OS requirements (NFC, supported Android version).
- Event organisers are comfortable with SERVA as the acquirer-facing brand at the point of sale.

7.6 Risks

Risk	Mitigation
PCI MPoC (or equivalent) certification timelines delay launch.	Start certification scoping in parallel with Phase 1; consider a certified partner SDK to shortcut the path.
Poor connectivity at venues causes declines and queues.	Define offline/store-and-forward policy explicitly; provide clear merchant UX for retries; pre-event connectivity checks.
Vendor staff training gap leads to fraud or error.	Short, in-app training + quick reference cards; device-level role separation; transaction limits per device.
Device loss or theft at events.	Remote deactivation of device binding; automatic lock after inactivity; per-device transaction caps.

7.7 Acceptance Criteria (high-level)

- A vendor can be onboarded, bind a device, and take a live card payment end-to-end.
- Sales, voids, and linked refunds all appear in the vendor and organiser reports within the agreed SLA.
- A customer paying with a Serva Wallet virtual card sees the transaction enriched in the SERVA app.
- The solution has passed the required scheme and PCI certifications for the target markets.

8. Cross-Cutting Requirements

8.1 Compliance & Regulatory

- PCI DSS scope shall be minimised in Phase 1 and explicitly managed in Phases 2 and 3 (including PCI MPoC for SoftPOS).
- FICA / KYC obligations shall be met for wallet customers and SoftPOS vendors at the appropriate tier.
- POPIA shall govern the processing of customer and vendor personal data across all three phases.
- Card scheme rules (Mastercard, Visa) shall be complied with, particularly around BIN usage, 3DS, and disputes.
- Consumer protection and advertising rules shall apply to wallet top-up terms, expiry, and refund policies.

8.2 Security

- No PAN or CVV data shall be stored by SERVA; card data entry shall remain within certified surfaces.
- Strong authentication (biometrics / 3DS) shall be used for sensitive actions (card viewing, off-platform use, high-value top-ups).
- All device bindings (wallet and SoftPOS) shall be revocable server-side.
- Security incidents shall follow a defined response process with partner and regulator notification where required.

8.3 Reliability

- Payment, wallet, and SoftPOS flows shall meet or exceed the uptime and latency targets set for the current SERVA checkout.
- Webhooks and callbacks shall be idempotent; a reconciliation job shall reconcile state with each partner at least daily.
- Degradation modes (e.g. processor outage, issuer downtime) shall be defined and surfaced to users in plain language.

8.4 Operations & Support

- Internal operations tooling shall cover refunds, disputes, wallet adjustments, and SoftPOS vendor support in a single place.
- Runbooks shall exist for each partner (Tembo, issuer/sponsor bank) covering failure, incident, and dispute handling.
- Customer support shall be able to answer wallet, card, and SoftPOS questions without escalating to engineering for routine cases.

8.5 Reporting

- Finance shall receive daily reconciliation reports covering payments, wallet movements, card transactions, and SoftPOS settlements.

- Event organisers shall receive per-event reports combining in-app orders and SoftPOS transactions.
- Vendors shall see near-real-time transaction visibility and clear payout statements.

9. Phased Roadmap

The three phases are sequenced so that each one provides the foundation for the next. Indicative timing is included for planning only and should be validated with engineering and partners.

Phase	Scope Summary	Depends On	Indicative Timing
Phase 1 — Tembo	Replace Yoco with Tembo as acquirer; enable additional payment methods.	Commercials with Tembo; compliance sign-off.	First delivery window
Phase 2 — Serva Wallet	Wallet + virtual card via sponsor bank; KYC tiers; safeguarded funds.	Phase 1 live; issuer / sponsor bank contract; KYC provider.	Second delivery window
Phase 3 — SoftPOS	Tap-to-pay on Android for vendors; Tembo as acquirer; vendor onboarding.	Phase 1 live; SoftPOS certification path; vendor onboarding tooling.	Third delivery window

9.1 Critical Dependencies

- Tembo Group contract, technical onboarding, and certifications.
- Card issuer and sponsor bank agreement for Phase 2.
- KYC / FICA provider for customers and vendors.
- PCI and scheme certifications required per phase.
- Internal capacity in product, engineering, legal, finance, and support.

10. Open Questions

The following items are not blockers for approving the direction but must be closed out before detailed design.

- Which specific payment methods beyond card, Apple Pay, and Google Pay will Tembo enable at Phase 1 launch (e.g. EFT, instant EFT)?
- Is Tembo already certified for Apple Pay and Google Pay in ZAR, or does that certification need to be completed as part of this programme?
- Which card scheme (Mastercard or Visa) and which sponsor bank will underpin the Serva Wallet?
- What KYC tiers and limits will apply to in-app-only wallet use versus off-platform virtual-card use?
- Will Phase 3 SoftPOS use a partner-certified SDK or a fully in-house build?
- What is SERVA's policy on offline SoftPOS transactions (decline vs store-and-forward)?
- What is the target commercial model — interchange share, acquiring margin, wallet float — across the three phases?
- Which jurisdictions beyond South Africa, if any, should Phase 2 and Phase 3 be designed to extend into?

11. Glossary

Term	Definition
Acquirer	Entity that processes card payments on behalf of a merchant.
Apple Pay	Apple's digital wallet that allows card payments using Face ID, Touch ID, or passcode on supported Apple devices and in Safari on supported Apple hardware.
Google Pay	Google's digital wallet that allows card payments on Android devices and in supported browsers.
BIN sponsorship	Arrangement where a licensed bank provides the card range (BIN) under which a programme issues cards.
Issuer	Entity that issues cards to cardholders, on behalf of a scheme.
Interchange	Fee paid between banks for the acceptance of card-based transactions.
KYC / FICA	Know-Your-Customer / Financial Intelligence Centre Act checks required before providing regulated financial services.
PCI DSS	Payment Card Industry Data Security Standard.
PCI MPoC	PCI Mobile Payments on COTS — the standard covering SoftPOS solutions.
POPIA	Protection of Personal Information Act (South Africa).
SoftPOS	Software-based point of sale allowing contactless card acceptance on a standard smartphone or tablet.
Sponsor bank	Bank that sponsors a non-bank programme manager into a card scheme.
Stored value / e-money	Prepaid balance held on behalf of a customer, redeemable for goods, services, or cash.
3DS	3-D Secure — additional authentication layer for online card transactions.