

Tech Spec:Online Brand Offers

Team/Pod: Affordability POS

Published Date:

Reviewer Name	Reviewed Date	Status

Table of Contents

1. Problem Statement	5
2. Introduction & Scope	5
2.1. Relevant Resources	5
3. Out of Scope	6
4. Futuristic Scope	6
5. Assumptions, Goals & Non-Goals	6
5.1. Assumptions	6
5.2. Goals	6
5.3. Non-Goals	8
6. Current Architecture / Current HLD	8
7. Final Approach - Specifications	8
8. Non Functional Requirements (NFRs)	9
8.1. Scalability	9
8.2. Availability	9
8.3. Security	9
8.4. Compliance	9
8.5. Reliability	9
8.6. Infra Cost	9
9. Feature Dependencies & SLAs	9
9.1. Upstream Dependencies	9
9.2. Downstream Dependencies	9
10. Testing Plan	10
10.1. Test Cases	10
10.2. UAT Testing	10
10.3. Performance/Load testing	10

11. Go-live plan	10
11.1. Production Rollout and Ramp plan	10
11.2. Backward Compatibility	10
11.3. Rollback plan	10
12. Monitoring & Logging	11
13. Milestones & Timelines	11
14. Glossary	11
15. Appendix	11
HLD Payment Flow:	12



Note

Read following docs to get expert on different topics -

- [Format and Structure Your Doc](#)
- [How to document code in Google Doc](#)
- [API Design Guide](#)
- [Put Google Doc in Presentation Mode](#)

Full Reading List - [Link](#)

1. Problem Statement

Brand offers are currently supported only for offline merchants, not for online merchants. Our goal is to build a unified platform that supports both online and offline merchants.

Leading electronic and mobile brands, such as Apple, Samsung, and LG, offer SKU-specific brand and bank-funded promotions on full swipe and EMI payments. Merchants expect full settlement of these offers, with the payment aggregator recovering the offer amount from the brand after IMEI validation and sale recording in the brand's system.

To meet these requirements, it is crucial that we enable these offers to work seamlessly across all merchant integration types, including Custom Checkout and S2S.

2. Introduction & Scope

Third-party Brand Offers are supported for online merchants through the central offer engine, enabling merchants to seamlessly provide exclusive brand offers to customers. Merchants receive the full brand-funded offer amount upfront, while Razorpay manages product validations and claims directly with the brand.

This solution is available across both S2S and Custom Checkout integrations, with support for single-quantity and single-item carts.

2.1. Relevant Resources

Link to Product Spec - [Link](#)

Link to Figma Design - [Link](#)

Link/Description around functional requirements

- ☰ Razorpay Offers Engine - Tech Spec
- ☰ Offer engine enhancement - SKU based EMI and business offers for Offline: Concept Note
- ☰ FE Tech Spec - POS offers on admin dashboard
- ☰ [Addendum] POS Offers in COE
- ☰ Integrations in COE for Validations
- ☰ Offers S2S APIs | Merchant Facing Doc (draft)
- ☰ Brand EMI Config Contract

3. Out of Scope

Multi-Quantity, Multi-SKU Offers:

- Supported across both S2S and Razorpay Checkout.
- Ability to combine multiple offers in a cart.

Offer Applicability for Multi-Quantity, Multi-SKU Carts:

- Merchants will be informed of offer applicability via our Offer APIs.

Advanced SKU-Level Rules:

- Example: Offer applies only if the quantity is 2 or more.

Solving for Standard Checkout:

- Merchants can pass IMEs during order creation for streamlined validation.

4. Futuristic Scope

5. Assumptions, Goals & Non-Goals

5.1. Assumptions

5.2. Goals

Emi Plans Details:

- Setup the EMI plans(ROI) for the Brand,SKU and Merchant combination
- UI to do CRUD on the EMI plans

Pricing Configuration:

- Flexibility to run different pricing plans on auth and offer amount

Miscellaneous Configurations:

- Configuration of scheme code based on Brand, Issuer and Merchant combination
- New account type for merchant offer account
- Merchant offer ledger account creation

Brand and SKU Details:

- Onboard new brand and SKU details into the system.
- Enable Merchant Brand EMI and map multiple brands with the necessary information (e.g., Dealer Code) and create associated ledger accounts.
- UI to do CRUD on Brand, SKU entities

Offers:

- Brand offers creation and modification in the Razorpay system for both online and offline (via the admin dashboard).
- UI support to create NC and LC in single offer/ multiple offer
- Able to modify the current running offer
- Bin configuration for cofunding usecase

Offers Discovery:

- Specific brand and SKU-related offers should be fetched and provided in response to the merchant's request.

Order Creation and Payment Flows:

- Pass brand and SKU-related information during the order creation and payment processing stages.

Ledger and Settlement for Authorization Amount:

- Handle ledger management and settlement for the authorization amount.

Post-Payment Processing:

- IMEI blocking with the brand system after payment processing.

Ledger and Settlement for Offer Amount:

- Manage ledger and settlement for the offer amount post-transaction.

Brand and Bank Reconciliation:

- Perform brand and bank reconciliation for offer amounts and transactions.

Refund and IMEI Unblocking:

- Process refunds and ensure IMEI unblocking with the brand system when the transaction is reversed or refunded.

5.3. Non-Goals

6. Current Architecture / Current HLD

☰ Razorpay Offers Engine - Tech Spec

☰ Tech Spec - POS <> Offers Engine

7. Final Approach - Specifications

TLDR; Head over to

- [Onboarding & Payment Flow](#)
 - This includes onboarding of Brands, SKUs & Offers
 - Order creation & Payment processing along with offer
- [Block & Unblock](#)
 - Post the payment processing, merchant will pick the product to deliver and hit block/unblock APIs along with IMEI details. This is required for sale recording in brand system
- [Post Payment Processing](#)
 - Brand will settle the offer amount only after a successful blocking of the product and sale recording in the brand system. Hence corresponding ledger entries and merchant settlement of the offer amount should be done after a successful blocking/unblocking of the product.

8. Non Functional Requirements (NFRs)

Talk about each as applicable and call out the expectations/risks from the feature.

8.1. Scalability

8.2. Availability

8.3. Security

8.4. Compliance

8.5. Reliability

8.6. Infra Cost

9. Feature Dependencies & SLAs

Callout upstream and downstream applications that will get impacted

9.1. Upstream Dependencies

Add SLO/SLA dashboard links for existing services.

Sr. No.	Service	Impact	SLA (if applicable)	POC for service
1	abc			Owner/expert on abc

9.2. Downstream Dependencies

Sr. No.	Service	Impact	SLA (if applicable)	POC for service
1	xyz		TBD	Aditi Maheshwari

10. Testing Plan

Lay down test scenarios

10.1. Test Cases

(UTs, ITs, regression suites, UI/UX tests and manual test efforts)

Capturing the results with upstream and downstream applications and validating the results against expected outputs

Add links here only.

10.2. UAT Testing

Capturing User acceptance test results, validating against genuine data

10.3. Performance/Load testing

Capturing any load testing that we wish to perform

11. Go-live plan

11.1. Production Rollout and Ramp plan

Add what will be done to progressively roll out the feature in production. You can take cues from product spec also to see how we can support the ramp up whether in a phased manner, in one shot or through certain gating criterias as needed.

11.2. Backward Compatibility

11.3. Rollback plan

Add what will be done in case of an immediate rollback requirement and how it will be implemented.

12. Monitoring & Logging

Jot down all metrics that need to be monitored for the changes being made

13. Milestones & Timelines

Breakdown the task into major milestone, divide the milestones to further task and subtask, mentioning owners, JIRA/Asana link, due date, reviewer, status

Creating a tabular sheet in excel is preferable here for better understanding

Please paste the link for the tracker with details similar to below here

Sr. No.	Title	Owner	JIRA/Asana link	Due Date	Reviewer	Status
1	Milestone 1 (M1)	Aditi ...				
2	Milestone 2 (M1)					

14. Glossary

This section describes all the terms and abbreviations being used specifically in the context of the above feature and heavily being used in this document.

15. Appendix

This section provides the links to all other important documents such as Project Milestone trackers, PRDs (created by Product team), Concept notes, JIRA/Asana project links and any other relevant links.

- [Razorpay Product: Concept Note Template <June 2022>](#)
- <https://stackoverflow.blog/2020/04/06/a-practical-guide-to-writing-technical-specs/>
- <https://www.thecloudtutorial.com/technical-specification-document/>

HLD Payment Flow:

