PCS Online Catalog & Request Management Platform

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6 min

Add a reaction

Product Requirements & Delivery Specification

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1. Executive Summary

PCS intends to design and build a secure, authenticated **B2B Online Catalog & Request Management Platform** for used and refurbished electronic devices.

This document is intended to be **implementation-facing** and sufficiently detailed for:

- Delivery teams to size, estimate, and plan implementation

- Internal teams to validate scope and assumptions

It combines:

- Business requirements

- Screen-level functional specifications

- Explicit user flows

- Detailed use cases per page

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2. Product Goals

- Standardize inbound B2B sales requests

- Improve data quality and pricing clarity

- Reduce manual clarification by sales teams

- Support negotiation-based, buyer-proposed pricing

- Enable company-level visibility of requests

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3. Scope Definition

3.1 In Scope (MVP)

- Authentication & session management

- Secure catalog access (authenticated users only)

- Product catalog (home + category pages)

- Advanced filtering & saved filters

- Product detail views

- Request builder (cart-style)

- Buyer-entered pricing (offer price)

- Request submission to PCS sales

- Request status & request history (read-only)

3.2 Explicitly Out of Scope

- Checkout / payments

- Inventory reservation or allocation

- Automated pricing or quoting

- Messaging or chat

- Notifications (email/SMS)

- Order lifecycle management

- Discounts, tax, shipping

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4. User Personas

4.1 Authenticated B2B Buyer

- Belongs to a company account

- Browses inventory frequently

- Uses filters and saved views

- Proposes pricing per line item

- Works as part of a buying team

4.2 PCS Sales Representative (Indirect User)

- Receives structured requests

- Reviews buyer-offered pricing

- Creates estimates in internal systems

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5. Application Structure

Primary navigation:

- Dashboard

- Products

- Requests

- Feedback (future)

- Settings

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6. Screen-Level Specifications & Use Cases

NOTE: Screens referenced below correspond to the provided Figma screenshots.

6.1 Product Catalog – Home Page

Reference: Product catalog main page (category tiles + product highlights)

Purpose

High-level entry point for browsing inventory and navigating to categories.

Key UI Elements

- Category tiles (Smartphones, Tablets, Laptops, Wearables, Accessories)
- Product cards grouped by category
- Add to request CTA on cards

Use Cases

UC-CAT-H-01: View catalog home

- Actor: Authenticated Buyer
- Trigger: Navigate to Products
- Success:
  - Categories and product cards load
  - Availability and reference pricing visible

UC-CAT-H-02: Navigate to category

- Trigger: Click category tile or "View all"
- Success: Category page loads with correct product type

6.2 Category Page (e.g. Smartphones)

Reference: Category page with left-side filters and product grid

Purpose

Primary working screen for buyers to find and add products efficiently.

Filters Supported

- Manufacturer
- Model

- Storage capacity

- Grade

- Region / Location

- Color

- Carrier

Functional Rules

- AND logic across filter groups

- OR logic within a filter group

- Results update immediately (no page reload)

Use Cases

UC-CAT-01: Apply filters

- Trigger: Select one or more filters

- Success:

    o Product list updates immediately

    o Active filters visible

UC-CAT-02: Clear filters

- Trigger: Click Clear

- Success: All filters reset, full list restored

UC-CAT-03: Add product to request (available)

- Trigger: Click Add to request

- Success:

    o Line item added to request builder

    o Request counter updates

UC-CAT-04: View unavailable product

- Behavior:

    o CTA disabled

- o   Availability clearly labeled

6.3 Product Detail View

Reference: Product detail modal/page with availability breakdown

Purpose

Allow detailed inspection before adding to request.

Key Elements

- Product images & thumbnails

- Specifications & grade

- Availability by location (read-only)

- Quantity selector

- Optional per-line note

- Add to request CTA

Business Rules

- Displayed price is **reference only**

- Final pricing is buyer-entered later

Use Cases

UC-DET-01: Open product detail

- Trigger: Click product card

- Success: Detail opens without losing filter context

UC-DET-02: Select quantity

- Rules:

  - o   Min 1

  - o   Max = total available

UC-DET-03: Add to request

- Success:

o   Product added with quantity and optional note

6.4 Request Builder (Requested Items)

Reference: Requested items empty and populated states

Purpose

Compose and price a structured purchase request.

Empty State

- Message: "You have not added any items yet"

- CTA: Start adding items

- Submit disabled

Populated State – Line Item Model

Field	Behavior
Product	Read-only
Grade	Read-only
Quantity	Editable
Offer Price	Buyer-entered
Line Total	Calculated
Remove	Enabled

Pricing Rules

- Line Total = Offer Price × Quantity

- Grand Total = Sum of all line totals

Use Cases

UC-RB-01: Enter offer price

- Validation: numeric, required

- Updates totals in real time

UC-RB-02: Edit quantity

- Validation: integer ≥ 1

UC-RB-03: Remove line item

- Updates totals

UC-RB-04: Submit request

- Preconditions:

    o At least one line

    o All offer prices valid

- Success:

    o Request submitted

    o Confirmation shown

6.5 Request Status / Requests Page

Reference: Requests list page with status tabs

Purpose

Provide company-level visibility into submitted requests.

Status Model (Per Request)

- New

- Received

- Estimate Created

- Completed

Visibility Rules

- All users see all company requests

- Read-only

Use Cases

UC-REQ-01: View request list

- Default sort: newest first

UC-REQ-02: Filter by status

- Trigger: Click status tab

UC-REQ-03: Search requests

- Search by request number

UC-REQ-04: View request details

- Read-only view of submitted data

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7. End-to-End User Flows

Flow A: Browse → Filter → Add → Price → Submit

1. Login

2. Open Products

3. Navigate to category

4. Apply filters

5. Add products to request

6. Open request builder

7. Enter offer prices

8. Submit request

Flow B: Product Detail → Request

1. Open category

2. Open product detail

3. Select quantity

4. Add to request

5. Price in request builder

Flow C: Post-Submission Tracking

1. Submit request

2. Open Requests page

3. Track status changes

4. View request details

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8. Non-Functional Requirements

Security

- Authenticated access only

- Company-level data isolation

Performance

- No full page reloads for filters or cart actions

Reliability

- No partial submissions

- Graceful empty/error states

Usability

- Clear CTAs

- Minimal steps to submit request

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9. Data & State Management

Request State

- In-memory/session until submission

- Persisted at submission only

Saved Filters

- Stored server-side

- User-specific

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10. Future Enhancements (Explicitly Excluded)

- Notifications

- CRM integration

- Draft request persistence

- Role-based access

- Messaging

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11. Delivery Planning Expectations

Whether development is performed internally or with external support, the delivery team should be able to derive from this document:

1. A clear understanding of scope and non-goals

2. An implementation approach and architecture

3. A delivery timeline by phase

4. A realistic effort estimate

5. Key risks and mitigation strategies

Appendix A – PRD / SOW Hybrid Clarifications

This appendix exists to **remove ambiguity**, reduce vendor assumptions, and enable **tighter estimates with fewer change orders**. Vendors are expected to explicitly acknowledge these items in their proposals.

A1. MVP vs Phase 2 Scope Boundary

MVP (Included in Estimate)

- Authentication (email/password)

- Catalog browsing (home + categories)

- Filtering and saved filters

- Product detail views

- Request builder with buyer-entered pricing

- Request submission

- Request status list (read-only)

Phase 2 / Future (Explicitly Excluded)

- Draft request persistence across sessions

- Notifications (email/SMS/in-app)

- CRM integration

- Order lifecycle management

- Inventory reservation or allocation

- Messaging / chat

- Discounts, tax, shipping

- Role-based permissions

Delivery Requirement: Any assumption that includes Phase 2 features must be called out explicitly and priced separately.

A2. Functional Non-Goals (Hard Constraints)

The system must **not**:

- Function as a checkout or e-commerce system

- Reserve, lock, or allocate inventory

- Auto-calculate or enforce pricing

- Allow editing of submitted requests

- Allow buyers to change request status

- Expose internal PCS sales workflows

A3. State Management Rules

Catalog State

- Filters persist during navigation within catalog
- Filters reset when leaving catalog section

Request Builder State

- Request exists only in-session until submission
- Browser refresh may clear request (acceptable for MVP)
- Submitted requests are immutable

Saved Filters

- Persist server-side
- User-specific only

A4. Validation & Error Handling (Minimum Expectations)

Request Builder

- Quantity must be integer ≥ 1
- Offer price must be numeric and required
- Submit disabled if any line item invalid

Submission

- No partial submissions
- Failure must surface a clear retry message
- Request must not be duplicated on retry

Empty States

- Catalog empty
- Filtered empty
- No requests yet

A5. Performance Expectations (Estimation-Relevant)

- Filter updates: < 500ms perceived response

- Add-to-request actions: instant UI feedback

- Request submission: synchronous confirmation

A6. Security & Access Control

- All access requires authentication

- Requests visible at **company level only**

- No cross-company data exposure

- No anonymous submissions

A7. API Contract Expectations (High-Level)

Vendors should assume APIs for:

- Catalog listing & filtering

- Product detail

- Saved filter CRUD

- Request creation

- Request list & status retrieval

Exact schemas are not required at proposal stage, but vendors must identify:

- API count

- Data ownership

- Error-handling approach

A8. QA & Acceptance Strategy

Vendors should include:

- Screen-level acceptance criteria

- Happy path + edge case coverage

- Regression approach for request submission

A9. Assumptions Log (Required in Proposal)

Delivery teams must include a clearly labeled **Assumptions & Exclusions** section covering:

- Authentication approach

- Hosting & infrastructure

- Browser support

- Data volumes

- Third-party services

A10. Commercial Expectations

PCS is open to:

- Fixed-price MVP

- Phased delivery

- Clear change-control mechanisms

Change requests must be:

- Explicitly documented

- Separately estimated

- Approved before implementation

Appendix B – 1-Page Logical Architecture Expectations (Non-Technical)

This diagram is intended to align PCS and vendors on **how the system components should relate**, without prescribing a specific cloud provider, framework, or infrastructure.

B1. Logical Architecture Diagram

Client (Web App)

- A single authenticated web experience for buyers

- Maintains in-session request state until submission

- Supports fast, no-reload interactions (filtering, add-to-request, pricing edits)

Backend / API Layer

- Central location for business rules (validation, pricing calculations, submission)

- Enforces company-level access controls

- Orchestrates integration to PCS sales processes

Data Ownership

- **Products / inventory** are read-only to buyers

- **Saved filters** are user-owned and persisted server-side

- **Submitted requests** are immutable system-of-record objects

- **Request visibility** is at the company level

Integrations (MVP)

- Catalog inventory is sourced from a **NetSuite Saved Search**, accessed via **Boomi** (application does not connect directly to NetSuite).

- Request submission must result in a **Sales Estimate created in NetSuite**.

- The vendor may propose whether the application calls Boomi for estimate creation or whether Boomi is triggered by an internal process, but the responsibility to ensure reliable estimate creation is in scope.

- Buyer cannot change request recipient/subject or routing rules (application-controlled).

Observability & Security

- Logging/auditability for: login, request creation, status changes

- Strong separation of company data

B3. Explicitly Not Required in the Diagram (Future)

- Notifications (email/SMS) to buyers

- CRM integration

- Draft request persistence across sessions

- Role-based permissions