



PARADIN ENVIROTECH

Software Requirements Specification

ShieldCert System - Sales and Outbound Operations Module

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1 Document Information

Field	Value
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2 Project Overview

2.1 What Are We Building

2.1.1 System Function

Comprehensive sales order creation, pricing management, outbound shipping, and fulfillment processes that handle the complete sales lifecycle from order creation through shipping completion, including purchase price assignment, asset valuation, shipping workflow, and carrier integration.

2.1.2 Users

- Value Recovery Team: Sales order creation, pricing, asset valuation
- Operations Staff: Outbound order fulfillment and shipping
- Warehouse Operators: Asset picking, pallet management, shipping preparation
- Accounting Team: Order approval and financial validation
- Sales Representatives: Customer relationship and order oversight

2.1.3 Problem Solved

Eliminates manual sales processes, automates pricing calculations for buyback and revenue share assets, provides real-time inventory visibility for sales, ensures accurate order fulfillment through barcode scanning, maintains complete shipping audit trails, and integrates with accounting systems for seamless financial processing.

2.1.4 Key Success Metric

100% accurate order fulfillment, 50% faster sales processing, automated pricing calculations, real-time inventory tracking, and seamless accounting integration with zero manual data entry.

2.2 Scope

2.2.1 In Scope

- Sales order dashboard with comprehensive filtering
- Sales order creation with customer and product selection
- Product line management with automated pricing

- Asset-specific sales with bulk upload capability
- Purchase price assignment for buyback and revenue share assets
- Outbound order creation and fulfillment workflow
- Shipping process with carrier integration
- Bill of Lading and packing list generation
- Post-shipment processing and status updates

2.2.2 Out Of Scope

- Real-time carrier tracking integration
- Automated shipping rate calculation
- Customer portal for order tracking
- Advanced pricing optimization algorithms



3 User Requirements

3.1 Sales Order Management

Feature Code	I Want To	So That I Can	Priority	Notes
FT-SO-DASH	View all sales orders in a dashboard	Quickly see and manage all sales order information in one place	Must	Grid format with sorting, filtering, and key metrics display
FT-SO-CREATE	Create new sales orders with customer and shipping details	Record and process sales transactions accurately	Must	Includes sales order type, customer selection, and shipping addresses
FT-SO-PRODUCT-LINE	Add product lines to sales order using model numbers	Define items, quantities, pricing, and totals for the order	Must	Auto-populates product details and calculates totals
FT-SO-ASSET-SPECIFIC	Add products using specific asset numbers	Sell individual assets with accurate pricing	Must	Includes bulk upload capability and asset validation

3.2 Pricing Management

Feature Code	I Want To	So That I Can	Priority	Notes
FT-PRICE-BUYBACK	Add purchase prices for buyback assets	Properly value assets before marking them ready to sell	Must	Required before assets can be marked 'To Be Sold'

Feature Code	I Want To	So That I Can	Priority	Notes
FT-PRICE-REVENUE	Assign purchase prices to revenue share assets	Calculate client payouts accurately	Must	Auto-calculates client payout using revenue share percentage

3.3 Outbound Operations

Feature Code	I Want To	So That I Can	Priority	Notes
FT-OB-DASH	View outbound orders dashboard	Manage all outbound orders and shipping status	Must	Shows orders ready for fulfillment and shipping
FT-OB-CREATE	Create outbound orders from sales orders	Initiate the shipping process for completed sales	Must	Auto-generates outbound order number (OT-YY-XXXX format)
FT-OB-FULFILL	Fulfill outbound orders through scanning and picking	Ensure accurate order fulfillment and shipping	Must	Barcode scanning validation and pallet assignment
FT-SHIPPING	Complete shipping process with carrier details	Generate shipping documents and update asset status	Must	BOL generation, carrier selection, and post-shipment processing

3.4 Reporting

Feature Code	I Want To	So That I Can	Priority	Notes
FT-SO-REPORTS	Print sales order reports with order lines and asset details	Review and share detailed order information	Should	Separate tabs for order lines and asset details

4 Detailed Feature Requirements

4.1 Ft So Create

4.1.1 Priority

Must Have

4.1.2 User Story

As a Value Recovery team member, I want to create new sales orders so that I can record and process sales transactions accurately

4.1.3 Preconditions

User has Value Recovery permissions, customers and products exist in system

4.1.4 Postconditions

Sales order created with unique number (SO-YY-XXXX format), ready for product line addition

4.1.5 Acceptance Criteria

- Sales Order Type selection from dropdown (Sales, Donation, Redeployment, Recycle, Internal Order)
- Sales Channel selection from dropdown
- Currency selection (site-specific, required)
- Customer Name selection from accounts marked as Downstream or Customer
- Shipping Address selection from customer-associated addresses
- Incoterms selection from dropdown
- Shipment Method selection (required)
- Invoicing Address selection from customer-associated addresses
- Customer must be selected before address options display
- All required fields validated before saving
- System-generated sales order number: SO-YY-XXXX (year + sequence from 0001)

4.1.6 Test Cases

Id	Description	Weight
SO-TC-001	Verify sales order creation with all required fields	High
SO-TC-002	Verify customer selection filters address options	High
SO-TC-003	Verify sales order number generation in correct format	High
SO-TC-004	Verify field validation prevents saving incomplete orders	High

4.2 Ft Price Buyback

4.2.1 Priority

Must Have

4.2.2 User Story

As a Value Recovery Team member, I want to add purchase prices for buyback assets so that assets can be properly valued before they are marked as ready to be sold

4.2.3 Preconditions

Assets belong to buyback order, assets have been graded, user has pricing permissions

4.2.4 Postconditions

Purchase prices assigned, assets can be marked 'To Be Sold'

4.2.5 Acceptance Criteria

- Manual entry option for individual asset purchase price
- Upload functionality with template (Asset number, Purchase price)
- Asset must be graded before receiving purchase price
- Validation prevents pricing ungraded assets with appropriate error message

- Manager override allows pricing ungraded assets (logged for audit)
- Assets with purchase prices can be marked 'To Be Sold'
- System prevents status change without purchase price for buyback assets
- All pricing actions logged in audit trail

4.2.6 Test Cases

Id	Description	Weight
PRICE-TC-001	Verify manual purchase price entry for individual assets	High
PRICE-TC-002	Verify bulk upload functionality with template	High
PRICE-TC-003	Verify grading requirement validation	High
PRICE-TC-004	Verify manager override capability and audit logging	Medium

4.3 Ft Ob Fulfill

4.3.1 Priority

Must Have

4.3.2 User Story

As an operator, I want to fulfill outbound orders through scanning and picking so that I can ensure accurate order fulfillment and shipping

4.3.3 Preconditions

Outbound order created and marked ready for fulfillment, assets available for picking

4.3.4 Postconditions

Assets picked and assigned to shipping pallets, order ready for shipment

4.3.5 Acceptance Criteria

- Operator selects outbound order from dashboard
- System displays order details and asset requirements
- Barcode scanning for asset validation
- For product line orders: scanned asset model must match product line
- For asset-specific orders: scanned asset number must match exactly
- Container scanning option to fulfill multiple assets at once
- Shipping pallet selection and assignment
- Real-time display of picked vs. required quantities
- Order marked 'Ready to Be Shipped' when all assets picked
- Accounting approval required for pre-pay terms
- Status progression: Pending → Processing → Ready for Shipment → Awaiting Accounting Approval → Approved for Shipment → Shipped

4.3.6 Test Cases

Id	Description	Weight
FULFILL-TC-001	Verify asset scanning validation for product line orders	High
FULFILL-TC-002	Verify exact asset matching for asset-specific orders	High
FULFILL-TC-003	Verify container scanning for bulk fulfillment	Medium
FULFILL-TC-004	Verify accounting approval workflow for pre-pay orders	High

5 Data Model

5.1 Entities

5.1.1 Salesorder

5.1.1.1 Description

Core sales order information

5.1.1.2 Key Fields

- sales_order_id (Primary Key)
- sales_order_number (Unique: SO-YY-XXXX)
- sales_order_type
- sales_channel
- currency
- customer_id (Foreign Key)
- shipping_address_id (Foreign Key)
- invoicing_address_id (Foreign Key)
- incoterms
- shipment_method
- total_amount_sold
- total_cost
- total_quantity_sold
- sales_representative_id
- created_by
- created_date
- shipped_date
- status

5.1.2 Salesorderline

5.1.2.1 Description

Product lines within sales orders

5.1.2.2 Key Fields

- line_id (Primary Key)
- sales_order_id (Foreign Key)
- model_id (Foreign Key)
- quantity
- price_per_unit
- total_amount
- line_number

5.1.3 Salesorderasset

5.1.3.1 Description

Specific assets in sales orders

5.1.3.2 Key Fields

- sales_asset_id (Primary Key)
- sales_order_id (Foreign Key)
- asset_id (Foreign Key)
- selling_price
- total_cost

5.1.4 Outboundorder

5.1.4.1 Description

Shipping and fulfillment orders

5.1.4.2 Key Fields

- outbound_order_id (Primary Key)
- outbound_order_number (Unique: OT-YY-XXXX)
- sales_order_id (Foreign Key)

- customer_id (Foreign Key)
- shipping_instructions
- desired_ship_date
- carrier_id (Foreign Key)
- seal_number
- trailer_number
- container_type
- container_size
- container_number
- total_weight
- status
- created_date
- shipped_date
- accounting_approved
- approved_by
- approved_date

5.1.5 Assetpurchaseprice

5.1.5.1 Description

Purchase price tracking for assets

5.1.5.2 Key Fields

- price_id (Primary Key)
- asset_id (Foreign Key)
- purchase_price
- price_applied_date
- applied_by
- revenue_share_percentage
- client_payout_amount

6 Business Rules

6.1 Sales Order Creation

- Sales order number format: SO-YY-XXXX (year + sequential from 0001)
- Customer must be account type Downstream or Customer
- Shipping and invoicing addresses must be associated with selected customer
- Sales order type determines allowed asset statuses for addition
- Sales order type cannot be changed once assets added

6.2 Asset Status Rules

- Sales Order Type 'Sales': Only 'To Be Sold' assets allowed
- Sales Order Type 'Donation': Only 'Reserved for Donation' assets allowed
- Sales Order Type 'Redeployment': Only 'Waiting for Redeployment' assets allowed
- Sales Order Type 'Recycle': Only 'For Recycle' assets allowed
- Sales Order Type 'Internal Order': Only 'To Be Sold' assets allowed

6.3 Pricing Rules

- Buyback assets require purchase price before 'To Be Sold' status
- Revenue share assets: $\text{Client payout} = \text{Purchase Price} \times \text{Revenue Share Percentage}$
- Assets with 'Purchase Price Applied' status can be added to sales orders
- Manager override required to modify 'Purchase Price Applied' status

6.4 Fulfillment Rules

- Asset scanning validation based on sales order type
- Product line orders: model number must match
- Asset-specific orders: exact asset number match required
- All assets must be picked before marking ready for shipment
- Accounting approval required for pre-pay payment terms
- Operators cannot remove assets from shipping order (must modify sales order)

6.5 Shipping Rules

- Outbound order number format: OT-YY-XXXX (year + sequential)
- Bill of Lading required for all shipments
- Packing list generated with all product lines and quantities
- Post-shipment asset status updates based on sales order type mapping
- NetSuite integration for shipment data transmission



7 Integration Points

7.1 Inbound Systems

System	Integration Type	Data Flow	Frequency
Asset Auditing	Database	Asset availability, status, and pricing information	Real-time
Account Management	Database	Customer information and addresses	Real-time

7.2 Outbound Systems

System	Integration Type	Data Flow	Frequency
NetSuite	API	Shipment data and asset status updates	Post-shipment
Invoicing	Database	Sales order completion for invoice generation	Real-time

8 Sign Off

8.1 Approval

Role	Name	Signature	Date

8.2 Document History

Version	Date	Changes Made	Changed By
1.0	2025-12-22	Initial Sales Operations module SRS	SRS Development Team

