INSPIRE - Master Product Requirements Document

Product Name: INSPIRE
Company: USDV Capital
Document Type: Master PRD
Version: 1.0
Last Updated: November 2025

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1. Executive Summary

INSPIRE is a next-generation loan origination system (LOS) purpose-built for single-family business purpose lending. The platform consolidates the entire loan lifecycle—from lead intake through funding—into a unified, AI-powered experience that replaces fragmented manual processes with intelligent automation.

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2. Problem Statement

Current Pain Points

Process Fragmentation:

- Loan origination managed across 10+ disconnected platforms (Google Drive, email, WhatsApp, HubSpot, GoHighLevel, Zoom, Excel, etc.)
- No single source of truth for deal status, documents, or communications

Manual, Time-Intensive Workflows:

- Deal sizing performed manually in Excel
- Third-party reports ordered individually via portals and emails
- Each report manually reviewed for red flags
- Diligence items collected via email and WhatsApp with no unified storage
- Repeat borrower data re-collected instead of leveraged

Lack of Intelligence:

- No automated analysis against underwriting guidelines
- No proactive identification of deal exceptions
- No automated document classification or filing

Operational Inefficiency:

- High labor cost per loan

- Extended time-to-close

- Error-prone manual data entry

- Limited scalability

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3. Solution Overview

INSPIRE addresses these challenges through:

1. **Unified Platform:** Single system replacing HubSpot, GoHighLevel, and manual processes

2. **Intelligent Automation:** AI-powered document analysis, classification, and filing

3. **Streamlined Borrower Experience:** Digital applications, quote selection, and document upload

4. **Integrated Third-Party Ordering:** API connections to key vendors (Single Source, CRS)

5. **Smart Data Room:** Automated document ingestion from email and drag-drop interfaces

6. **Real-Time Analysis:** Continuous review against USDV underwriting guidelines with red/green flag alerts

7. **Automated Credit Memos:** AI-generated deal packages with exception identification

8. **Pipeline Visibility:** Kanban-style deal tracking with per-deal closing dashboards

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4. Loan Products Supported

Loan Type	Description	Typical Timeline
Fix & Flip	Short-term financing for property renovation and resale	2-3 weeks to close
Ground-Up Construction	Financing for new construction on vacant or tear-down lots	2-3 weeks to close
DSCR Permanent	Long-term rental property financing based on debt service coverage ratio	4-6 weeks to close

Note: BRRRR strategy loans are NOT supported.

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5. User Roles

MVP (Full Access)

All internal USDV Capital team members with @usdvcapital.com email domain:

Role	Description
C-Suite / Executives	Strategic oversight, exception approvals, fund release authorization
Loan Officers	Borrower relationships, deal origination, quote presentation
Processors	Diligence collection, document management, third-party coordination
Underwriters	Deal analysis, credit memo review, investor submission
Admin	System configuration, user management, audit access

Post-MVP Additions

- **Borrowers:** Limited portal access (deal status, document upload, outstanding items)

- **Ambassador Partners:** Referral tracking, deal submission, commission visibility

Authentication

- Domain-based: @usdvcapital.com email grants automatic internal access

- OAuth support (Gmail) for streamlined login

- Email/password fallback option

6. Phase Overview

Phase	Name	Description
1	Intake / Pre-Qual	Quick App for new clients; streamlined entry for existing clients
2	Full Application	Digital loan application by product type with smart pre-fill
3	Deal Sizing	Automated population of RTL/DSCR sizers; LTV, rate, points, YSP calculation
4	Quote & Term Sheet	Multi-option quote presentation; borrower selection; auto-generated term sheet with e-sign; third-party deposit collection
5	Third-Party Reports	Automated ordering via API/email; auto-ingestion to deal data room
6	Diligence Chase	Smart diligence request lists; intelligent data room with drag-drop and email ingest; AI document classification
7	AI Analysis & Credit Memo	Real-time document review; red/green flag alerts; automated credit memo generation; exception identification
8	Pipeline & Closing	Kanban pipeline; per-deal closing dashboard/checklist; status tracking through funding
9	WhatsApp Integration	AI participant in borrower chats; automatic message logging and document extraction

7. Tech Stack (Recommended)

Frontend

- **Framework:** Next.js (React)

- **Styling:** Tailwind CSS

- **UI Components:** shadcn/ui or similar component library

- **Forms:** React Hook Form with Zod validation

Backend

- **Runtime:** Node.js

- **Framework:** Next.js API routes or separate Express/Fastify service

- **Database:** PostgreSQL (relational data) + vector database for AI embeddings

- **ORM:** Prisma

AI/ML Layer

- **LLM:** Claude API (document analysis, classification, memo generation)

- **Document Processing:** OCR integration for scanned documents

- **Embeddings:** For semantic search across documents and communications

Infrastructure

- **Hosting:** Vercel (frontend) + AWS/GCP (backend services)

- **File Storage:** Google Drive API integration (primary) + S3 (backup/archival)

- **Email:** SendGrid or AWS SES (transactional email)

- **E-Signature:** DocuSign or PandaDoc API

Integrations

- **Third-Party Reports:** Single Source API, CRS API

- **Payments:** Stripe (third-party deposit collection)

- **Communication:** WhatsApp Business API, Twilio (SMS)

- **Notifications:** Roam API, email, in-app

8. Shared Components

8.1 Authentication & Authorization

- Domain-based auto-authentication (@usdvcapital.com)

- OAuth 2.0 (Google)

- Email/password with secure password requirements

- Session management with JWT

- Future: Role-based permissions matrix

8.2 Notification System

- Multi-channel: Email (default), SMS, push, in-app

- User-configurable preferences

- Roam integration for team alerts

- Notification types:
  - Deal status changes

  - Document received/flagged

  - Task assignments

  - Deadline reminders

  - Borrower auto-reminders

8.3 Document Management Engine

- Unified ingestion (email parsing, drag-drop, direct upload, WhatsApp extraction)

- AI-powered classification against diligence checklist

- Automatic naming convention with date stamps

- Version control (v1, v2 or date-based)

- Expiration tracking with alerts

- Google Drive sync as primary storage

8.4 Global Search

- Search across deals, borrowers, properties, documents

- Filters: loan type, status, date range, investor, assigned user

- Full-text search within documents

8.5 Activity Logging & Audit Trail

- Every action logged (user, action, timestamp, affected record)

- Admin-accessible audit reports

- Compliance-ready export

8.6 Task Management

- Per-deal task creation and assignment

- Due dates and reminders

- Monday.com-style workflow tracking

- Bulk operations support

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9. Core Data Models

9.1 Borrower / Sponsor

```
Borrower {
  id
  fullName
  email
  phone
  ssn (encrypted)
  dateOfBirth
  citizenship
  creditScore
  address
  driversLicense
  passport
  greenCard
  experienceMetrics {
    totalDeals
    dealsLast12Months
    dealsLast36Months
    propertiesOwned
  }
  personalFinancialStatement
  scheduleOfRealEstateOwned
  backgroundCheckStatus
```

```
    creditReportStatus
    isExistingClient
    isRealEstateCFOClient
    createdAt
    updatedAt
  }
```

9.2 Entity

```
Entity {
  id
  name
  type (LLC, LP, Corp, Other)
  ein (encrypted)
  statesRegistered[]
  articlesOfOrganization
  articlesOfIncorporation
  operatingAgreement
  bylaws
  certificateOfGoodStanding
  einLetter
  w9
  owners[] {
    borrowerId
    ownershipPercentage
  }
  parentEntityId (for nested structures)
  createdAt
  updatedAt
}
```

9.3 Deal

```
Deal {
  id
  status (prospect, application, quote, initial_uw, processing, underwriting, closed, funded, archived)
  loanType (fix_flip, ground_up, dscr)
  borrowerId
  entityId
  coGuarantors[]
  propertyId
  investor (eastview, archwest, other)
  loanAmount
```

```
    interestRate
    ltv / ltc
    originationPoints
    ysp
    prepaymentStructure
    termSheetId
    quoteSelectedAt
    termSheetSignedAt
    depositPaidAt
    targetCloseDate
    actualCloseDate
    fundedDate
    assignedLoanOfficer
    assignedProcessor
    assignedUnderwriter
    notes[]
    tasks[]
    activityLog[]
    createdAt
    updatedAt
  }
```

9.4 Property

```
  Property {
    id
    address
    propertyType (single_family, commercial)
    commercialType (multifamily, hospitality, retail, office, industrial, mixed_use)
    bedrooms
    bathrooms
    squareFootage
    landOwned (boolean)
    purchasePrice
    currentMarketValue
    rehabBudget
    constructionBudget
    arv (afterRepairValue)
    projectedRent
    projectedExpenses {
      hoa
      taxes
      insurance
```

```
  }
  occupancyStatus
  permitStatus
  createdAt
  updatedAt
}
```

9.5 Document

```
Document {
  id
  dealId
  category (borrower, property, closing, third_party)
  type (articles_of_org, bank_statement, appraisal, title_commitment, etc.)
  fileName
  fileUrl (Google Drive)
  version
  uploadedAt
  uploadMethod (email, drag_drop, whatsapp, direct)
  aiClassification
  aiConfidenceScore
  reviewStatus (pending, approved, rejected)
  rejectionReason
  expirationDate
  isExpired
  flags[] (red_flag, green_flag)
  flagDetails
}
```

9.6 Quote

```
Quote {
  id
  dealId
  loanAmount
  interestRate
  ltv
  prepaymentStructure
  prepaymentType (step_down, level)
  prepaymentYears
  amortization (interest_only, amortizing)
  interestOnlyPeriod
  originationPoints
```

```
    ysp
    cashOut (boolean)
    cashOutAmount
    expiresAt
    selectedAt
    createdAt
}
```
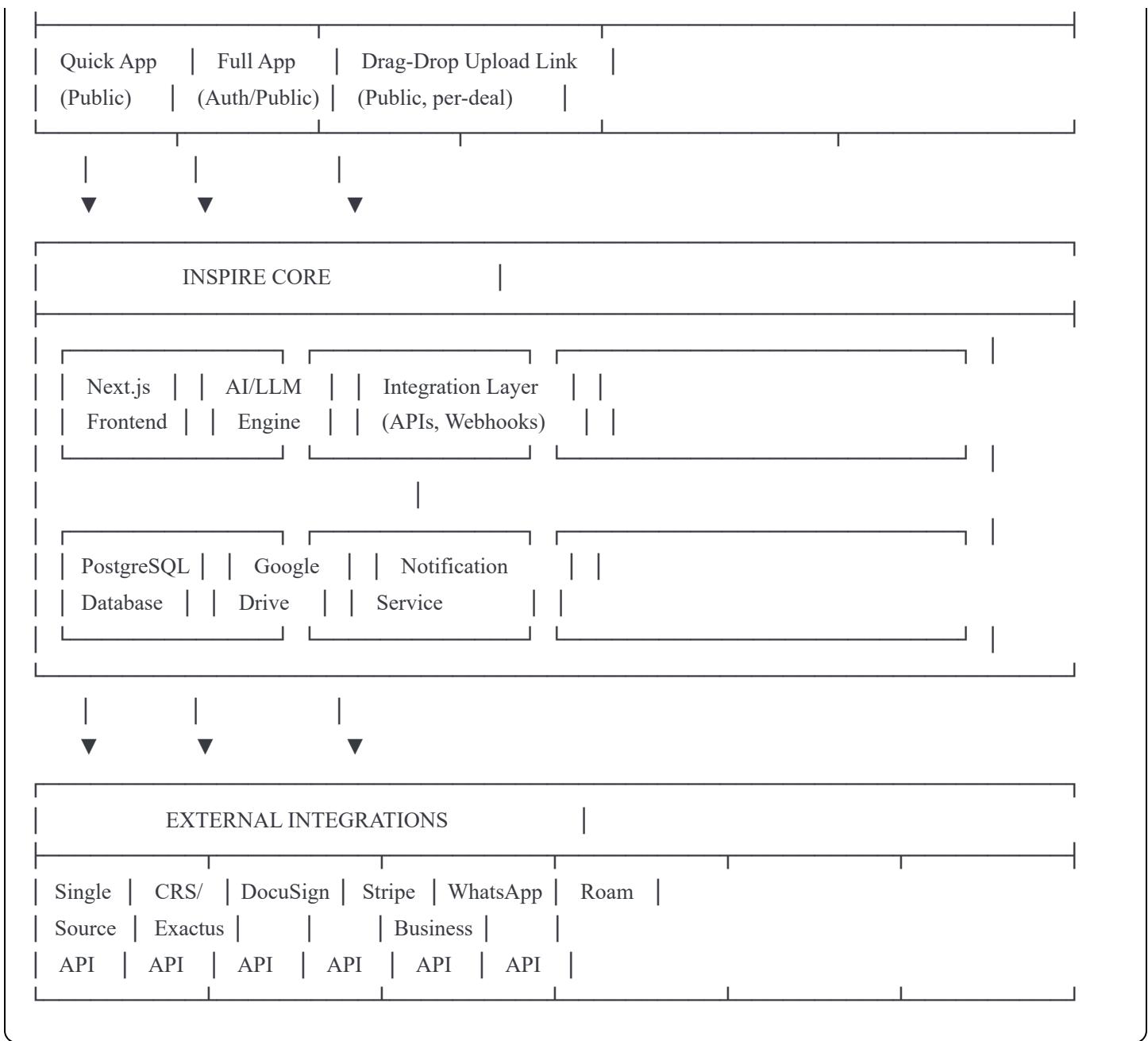
9.7 Term Sheet

```
TermSheet {
  id
  dealId
  quoteId
  documentUrl
  sentAt
  signedAt
  signatureUrl
  expiresAt (2 business days default)
}
```

9.8 Third-Party Report

```
ThirdPartyReport {
  id
  dealId
  reportType (appraisal, title, flood, feasibility, collateral_desktop, credit, background, insurance)
  provider (single_source, marketwise, crs, exactus, trinity, first_choice)
  orderedAt
  receivedAt
  documentId
  status (ordered, received, reviewed)
  aiAnalysis
  flags[]
  cost
}
```

10. Architecture Overview

```
+------------------------------------------------------+
|                BORROWER TOUCHPOINTS            |
```

```
┌────────────────────────────────────────────────────────────┐
│  Quick App   │  Full App   │  Drag-Drop Upload Link  │      │
│  (Public)    │  (Auth/Public) │  (Public, per-deal)   │      │
└────────────────────────────────────────────────────────────┘
       │            │            │
       ▼            ▼            ▼
┌────────────────────────────────────────────────────────────┐
│            INSPIRE CORE                 │                    │
├────────────────────────────────────────────────────────────┤
│  ┌──────────┐  ┌──────────┐  ┌─────────────────────────┐ │
│  │ Next.js  │  │ AI/LLM   │  │ Integration Layer       │ │
│  │ Frontend │  │ Engine   │  │ (APIs, Webhooks)        │ │
│  └──────────┘  └──────────┘  └─────────────────────────┘ │
│                      │                                      │
│  ┌──────────┐  ┌──────────┐  ┌─────────────────────────┐ │
│  │ PostgreSQL │ │ Google   │  │ Notification            │ │
│  │ Database │  │ Drive    │  │ Service                 │ │
│  └──────────┘  └──────────┘  └─────────────────────────┘ │
└────────────────────────────────────────────────────────────┘
       │            │            │
       ▼            ▼            ▼
┌────────────────────────────────────────────────────────────┐
│         EXTERNAL INTEGRATIONS            │                   │
├────────────────────────────────────────────────────────────┤
│ Single │ CRS/   │ DocuSign │ Stripe │ WhatsApp │ Roam  │
│ Source │ Exactus │         │        │ Business │       │
│ API    │ API    │ API      │ API    │ API      │ API   │
└────────────────────────────────────────────────────────────┘
```

Data Flow Summary

1. **Inbound:** Borrower submits Quick App → Full App → data stored in PostgreSQL

2. **Sizing:** Deal data auto-populates sizer logic → outputs stored on Deal record

3. **Quotes:** Multiple quotes generated → presented via web UI → selection triggers term sheet

4. **Documents:** Ingested via email/drag-drop/WhatsApp → AI classifies → stored in Google Drive → metadata in PostgreSQL

5. **Analysis:** AI continuously reviews documents against underwriting guidelines → flags stored → credit memo generated

6. **Pipeline:** All deals visible in Kanban → clicking into deal shows closing dashboard

11. External Integrations

Integration	Purpose	Method	Priority
Single Source	Appraisal, Title, Flood, Feasibility, Collateral Desktop	API	High
CRS	Credit (tri-merge), Background Checks	API	High
Exactus	Credit, Background (backup)	API/TBD	Medium
Marketwise	Appraisal (backup)	Portal	Low
Trinity	Feasibility (backup)	Email	Low
First Choice Insurance	Property, Builders Risk, GL policies	Email/TBD	Medium
Google Drive	Document storage, data room	API	High
DocuSign / PandaDoc	E-signatures	API	High
Stripe	Payment processing (deposits)	API	High
WhatsApp Business	Borrower communication, doc extraction	API	High
Roam	Team notifications	API	Medium
SendGrid / AWS SES	Transactional email	API	High

12. Security & Compliance

Data Protection

- **Encryption at Rest:** AES-256 for all stored data

- **Encryption in Transit:** TLS 1.3 for all connections

- **PII Handling:** SSN, EIN, financial data encrypted with separate key management

- **Access Logging:** All PII access logged with user, timestamp, action

Authentication Security

- Secure password requirements (12+ characters, complexity rules)

- Session timeout after inactivity

- Future: MFA support

Compliance Considerations

- FCRA compliance for credit authorization

- State-specific lending disclosures (as applicable)

- Data retention: 1 year post-funding, then automated reminder to retain or purge

Audit Trail

- Every system action logged

- Admin-accessible audit reports

- Exportable for compliance reviews

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13. UX Principles

Borrower-Facing

- Progress indicators on all multi-step forms

- Auto-save (never lose work)

- Mobile-optimized (responsive design)

- Clear validation with helpful error messages

- Confirmation screens after key actions

Internal Team

- **Home Dashboard:** Deals needing attention, tasks due, alerts, KPIs

- **Quick Actions:** One-click common tasks

- **Bulk Operations:** Multi-select for status changes, exports

- **Keyboard Shortcuts:** Power user efficiency

- **Contextual Tooltips:** In-line help

- **Help Library:** Searchable documentation

General

- Undo/confirmation for destructive actions

- Meaningful empty states with guidance

- Clear loading states during processing

- Minimal, clean UI - avoid clutter

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14. Post-MVP Roadmap

Feature	Description
Borrower Portal	Logged-in borrower experience: deal status, doc upload, outstanding items
Communication Hub	Centralized log of all borrower communications across channels
Post-Close Servicing	Payment tracking, maturity dates, payoffs, extensions, modifications
Construction Draw Management	Draw schedules, inspections, disbursements for RTL loans
Investor Loan Tape & Reporting	Automated loan tape generation for Eastview, ArchWest, etc.
Renewal Pipeline	Proactive tracking for repeat borrower opportunities
Analytics Dashboard	Pipeline velocity, conversion rates, time-to-close, revenue metrics
Real Estate CFO.ai Integration	Direct data pull for existing CFO clients
Ambassador Program Management	Referral tracking, commissions, partner performance
Role-Based Permissions	Granular access control by user role

15. Success Metrics

Metric	Target
Time to Close (RTL)	≤ 3 weeks
Time to Close (DSCR)	≤ 6 weeks
Application Completion Rate	> 80%
Document Auto-Classification Accuracy	> 95%
Manual Data Entry Reduction	> 70%
Platforms Replaced	HubSpot, GoHighLevel, Excel sizers

16. Dependencies

Dependency	Status	Notes
USDV Underwriting Manual	In Progress	To be created in separate workstream
Eastview RTL Sizer	Pending Upload	Excel file for Phase 3 logic
Eastview DSCR Sizer	Pending Upload	Excel file for Phase 3 logic
Quote HTML Templates	Pending Upload	For Phase 4 presentation
Term Sheet Template	Pending Upload	For Phase 4 auto-generation
Single Source API Documentation	Needed	For Phase 5 integration

Dependency	Status	Notes
CRS API Documentation	Needed	For Phase 5 integration
WhatsApp Business API Access	Needed	Requires Meta approval

17. Open Questions

1. **Complex Ownership Structures:** How should nested entities and cross-entity guarantors be modeled and displayed in the UI? (See Appendix A for proposed approach)

2. **Multi-Property Deals:** Should portfolio loans have a single deal record with multiple properties, or multiple linked deal records?

3. **Investor Selection:** At what phase is the investor (Eastview, ArchWest, other) selected? Does this affect sizing logic?

4. **Rate Lock Source:** Where does rate lock data come from? Investor rate sheets?

5. **White-Label Quotes:** Should quote pages be brandable for Ambassador partners?

Appendix A: Complex Ownership Structure Modeling

Proposed Approach

Nested Entities:

- Entity model includes optional `parentEntityId` field

- UI displays entity hierarchy as expandable tree

- Ownership percentages roll up through the chain

Multiple Guarantors Across Entities:

- Deal model includes `coGuarantors[]` array

- Each guarantor linked to their respective entity

- Guarantor can appear on multiple deals across different entities

- Credit/background checks linked to Borrower record, reusable across deals

UI Representation:

```
Deal: 123 Main St Fix & Flip
├── Borrowing Entity: Main Street Holdings LLC
│   ├── Owner: John Smith (60%) [Guarantor]
│   └── Owner: Jane Doe (40%) [Guarantor]
│       └── Member of: Doe Family Trust
│           └── Beneficiary: Jane Doe (100%)
└── Co-Guarantor: Robert Smith (not an owner, but guaranteeing)
    └── Member of: Smith Capital LLC (separate entity)
```

Benefits:

- Clear visibility into full ownership/guarantor structure

- Reusable borrower/entity data across deals

- Compliance-ready documentation of all parties

End of Master PRD