

# Genesis Provenance - Project Status Report

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**Date:** November 29, 2025

**Phase:** 1.5 (Enhanced Foundation + Phase 2 Preparation)

**Status:**  Ready for Vercel Deployment






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## Executive Summary

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Genesis Provenance is an **AI-powered provenance vault for luxury assets** (watches, handbags, jewelry, art, collectibles). The platform enables collectors, resellers, and partners to authenticate, document, and track high-value assets with verified provenance records.

### Current Status:









-  **Phase 1 Complete:** Foundation with marketing site, authentication, database, and dashboard
  -  **Enhancements Applied:** Professional images, S3 setup, extended database schema
  -  **Documentation Complete:** Vercel deployment guide, DeepAgent best practices
  -  **Phase 2 In Progress:** Core features partially built (S3 ready, schema extended)
  -  **Phase 3-4 Pending:** Integrations (n8n, AI, Stripe) to be built in future conversations
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## What's Been Completed

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### 1. Professional Marketing Site

#### Pages Implemented:

-  **Home** - Hero section, features, social proof, CTAs
-  **Product/Features** - Three user types (Collectors, Resellers, Partners)
-  **How It Works** - 5-step process visualization
-  **Pricing** - Collector, Reseller, Enterprise tiers
-  **Use Cases** - Real-world scenarios for each user type
-  **Security & Compliance** - Enterprise-grade security features
-  **About** - Company story, vision, mission, values
-  **Contact** - Working form that saves to database

#### Design:







- Navy blue (#1e3a8a) and gold accent color scheme
- Professional Playfair Display (headings) + Inter (body) typography
- Fully responsive across mobile, tablet, desktop
- Framer Motion animations with scroll triggers
- **12 professional luxury asset images** (replaced all placeholders)

#### Images Added:

1. `hero-luxury-vault.jpg` - Hero section
2. `collector-luxury-watch.jpg` - Product page (Collectors)
3. `reseller-boutique.jpg` - Product page (Resellers)
4. `partners-business.jpg` - Product page (Partners)

5. `digital-security.jpg` - Security page
6. `watch-collection.jpg` - Available for future use
7. `handbag-collection.jpg` - Available for future use
8. `jewelry-collection.jpg` - Available for future use
9. `asset-authentication.jpg` - Available for future use
10. `provenance-documents.jpg` - Available for future use
11. `luxury-office.jpg` - Available for future use
12. `luxury-lifestyle.jpg` - Available for future use


## 2. Authentication System

-  `NextAuth.js v4` with credentials provider
-  Email/password login with `bcrypt` hashing
-  Secure JWT session management
-  User registration with role selection
-  Protected routes with automatic redirects
-  Multi-tenant organization model

### User Roles:

- `collector` - Individual collectors
- `reseller` - Dealers and boutiques
- `partner` - Auction houses, insurers, lenders
- `admin` - Platform administrators

### Default Admin Account:






- Email: `john@doe.com`
- Password: `johndoe123`
- ( Change in production!)

## 3. Database Foundation

### Phase 1 Tables (Implemented & Seeded):

- `users` - User accounts with authentication
- `organizations` - Multi-tenant organization management
- `items` - Luxury asset records
- `item_categories` - Asset categories (Watch, Handbag, Jewelry, Art, Collectible, Other)
- `contact_submissions` - Marketing site contact form submissions

### Phase 2 Tables (Schema Ready, Not Yet Used):





-  `media_assets` - Photos and documents (S3 keys)
-  `provenance_events` - Timeline of asset history
-  `certificates` - Generated provenance certificates
-  `subscriptions` - Stripe subscription management
-  `audit_logs` - Security and compliance logging

### New Enums Added:

- `MediaAssetType` - photo, document, certificate
- `ProvenanceEventType` - registered, reviewed, status\_changed, ownership\_transfer, certificate\_issued, note\_added
- `SubscriptionStatus` - active, cancelled, past\_due, incomplete, trialing
- `SubscriptionPlan` - collector, reseller, partner, enterprise

## 4. Dashboard Application






### Implemented Pages:

-  **Dashboard Home** - Welcome message, summary cards (placeholder data), quick actions
-  **My Vault** - Empty state with “Coming in Phase 2” message
-  **Settings** - Profile display, password change form (placeholder)
-  **Admin Console** - View users, organizations, contact submissions

### Navigation:

- Sidebar with role-based menu items
- Top bar with user profile dropdown
- Sign out functionality
- Responsive layout

## 5. S3 Cloud Storage (Configured)

-  AWS S3 client initialized
-  `lib/aws-config.ts` - Bucket configuration
-  `lib/s3.ts` - Upload, download, delete, rename functions
-  Uses signed URLs for secure file access
-  Environment variables documented

### Ready for:

- Photo uploads (multiple per asset)
- Document uploads (PDFs, images)
- Certificate PDF storage

## 6. Comprehensive Documentation

### VERCEL\_DEPLOYMENT.md (14 Parts, Production-Ready)

Complete guide covering:

1. Database setup (Vercel Postgres, Neon, Supabase)
2. AWS S3 storage configuration
3. Vercel project setup and import
4. Environment variables (all required vars)
5. Custom domain configuration (GoDaddy DNS)
6. SSL/TLS certificates (automatic)
7. Database migrations on Vercel
8. Post-deployment checklist
9. Microsoft 365 email setup (MX, SPF, DKIM, DMARC)
10. Continuous deployment workflow
11. Troubleshooting common issues
12. Performance optimization
13. Security best practices
14. Maintenance schedule

### DEEPAGENT\_BEST\_PRACTICES.md (10 Sections)

Best practices and prompt templates for:

1. Understanding DeepAgent’s strengths
2. Phase-based development strategy
3. Effective prompt templates (6 types)
4. Database & schema management

5. Authentication & authorization
6. File uploads & S3 integration
7. API & webhook development
8. Third-party integrations
9. Debugging & troubleshooting
10. Common pitfalls to avoid

## IMAGE\_INVENTORY.md

Catalog of all 12 professional images with:

- File names and dimensions
- Usage locations
- Purpose descriptions
- Best practices guidelines

## DNS\_SETUP.md (Original Phase 1)

GoDaddy DNS configuration for:

- Root, www, app, api subdomains
- Microsoft 365 email records
- SSL/TLS recommendations

## README.md

Project overview with:

- Tech stack details
- Local development setup
- Environment variables
- Database seeding
- Troubleshooting tips



## What's Ready But Not Yet Built

### Phase 2: Core Features (Foundation Ready)

The database schema and S3 utilities are **ready** for these features:

1. **Asset Onboarding Wizard** ⚠️ Partially built
  - Multi-step form (4 steps: Details, Photos, Documents, Review)
  - File upload UI
  - Integration with S3 and database
  - Provenance event creation
2. **Items List/Grid** ❌ Not started
  - Display user's assets
  - Filter by category, status
  - Search by brand/model
  - Pagination
  - Grid/list view toggle
3. **Item Detail Pages** ❌ Not started
  - Full metadata display
  - Photo gallery with lightbox

- Document list with downloads
- Provenance timeline
- Edit/Delete capabilities

#### 4. **File Upload System** ❌ Not started

- API route for multipart uploads
- Progress indicators
- Error handling
- File validation



## What's Planned for Future Phases

### Phase 3: Integrations & Automation

#### 1. **n8n Webhooks**

- Outgoing: `POST /webhook/asset-created` (trigger AI analysis)
- Incoming: `POST /api/webhooks/provenance-update` (receive AI results)
- Documentation for n8n workflow setup

#### 2. **AI Service Abstraction**

- `lib/ai-service.ts` with `analyzeAsset()` function
- Prepares data for AI vision analysis
- Processes AI responses
- Mock implementation for testing

#### 3. **Certificate Generation**

- HTML certificate view
- Public shareable link with secure token
- PDF generation (optional)
- Email delivery

#### 4. **Virtual Roles Configuration**

- `/config/agents/` folder
- Agent prompt templates:
  - CEO, CPO, CTO, CFO
  - ProvenanceAnalyst
  - FraudAgent
  - CustomerSuccess
  - JSON I/O schemas
  - Example payloads

### Phase 4: Payments & Subscription

#### 1. **Stripe Integration**

- Checkout session creation
- Subscription management UI
- Webhook handlers (7 events)
- Plan gating logic
- Customer portal

## 2. Plans:

- Collector: \$29/month
- Reseller: \$99/month
- Enterprise: Custom pricing

# Deployment Instructions

## Quick Start: Deploy to Vercel

### 1. Push to GitHub:

```
bash
cd /home/ubuntu/genesis_provenance/nextjs_space
git init
git add .
git commit -m "Genesis Provenance Phase 1.5"
git remote add origin https://github.com/YOUR_USERNAME/genesis-provenance.git
git push -u origin main
```

### 2. Import to Vercel:

- Go to <https://vercel.com/new>
- Select GitHub repository
- Configure environment variables (see below)
- Deploy

### 3. Required Environment Variables:

```
``bash
DATABASE_URL="postgresql://user:pass@host:5432/db?sslmode=require"
NEXTAUTH_URL="https://app.genesisprovenance.com"
NEXTAUTH_SECRET=""
NODE_ENV="production"
```

# S3 Storage

```
AWS_ACCESS_KEY_ID=""
AWS_SECRET_ACCESS_KEY=""
AWS_REGION="us-east-1"
AWS_BUCKET_NAME="genesis-provenance-assets"
AWS_FOLDER_PREFIX="uploads/"
``
```

### 1. Configure Custom Domains in Vercel:

- Add: `genesisprovenance.com`
- Add: `www.genesisprovenance.com`
- Add: `app.genesisprovenance.com`

### 2. Update GoDaddy DNS:

- See `VERCEL_DEPLOYMENT.md` Part 5 for exact records
- Point A record and CNAMEs to Vercel
- Wait 10-15 minutes for propagation

### 3. Run Database Migrations:

```
bash
```

```
vercel env pull .env.local
npx prisma migrate deploy
npx prisma db seed
```

**Full Deployment Guide:** See `nextjs_space/VERCEL_DEPLOYMENT.md`

## Next Steps

### Immediate (This Week):

1. ☒ Deploy to Vercel following guide above
2. ☒ Configure custom domains (genesisprovenance.com)
3. ☒ Set up Microsoft 365 email (see DNS\_SETUP.md)
4. ☒ Test all marketing pages and authentication
5. ☒ Review admin console

### Phase 2 Completion (Next Conversation):

Prompt to use:

"Continue building Genesis Provenance Phase 2:

1. Complete asset onboarding wizard (4-step form)
2. Build items list/grid with filters and search
3. Create item detail pages with photo gallery
4. Implement file upload API routes
5. Build provenance timeline component

The database schema is already extended and S3 is configured.  
Build production-ready features with error handling."

### Phase 3: Integrations (Future Conversation):

"Add Phase 3 integrations to Genesis Provenance:

1. n8n webhook endpoints (asset-created, provenance-update)
2. AI service abstraction with mock implementation
3. Certificate generation (HTML view + shareable link)
4. Virtual roles config files in /config/agents/

Provide n8n workflow documentation."

## Phase 4: Stripe (Future Conversation):

"Integrate Stripe subscriptions into Genesis Provenance:

Plans: Collector (\$29/mo), Reseller (\$99/mo), Enterprise (custom)

Implement:

- Checkout flow
- Subscription management UI
- Webhook handlers
- Plan gating logic

Provide test mode setup guide."



## Tech Stack

### Frontend:

- Next.js 14.2.28 (App Router)
- React 18.2.0
- TypeScript 5.2.2
- Tailwind CSS 3.3.3
- shadcn/ui components
- Framer Motion (animations)

### Backend:

- Next.js API Routes
- NextAuth.js 4.24.11 (authentication)
- Prisma 6.7.0 (ORM)
- PostgreSQL (database)

### Infrastructure:

- Vercel (hosting)
- AWS S3 (file storage)
- Neon/Vercel Postgres (database hosting)

### Future:

- Stripe (payments) - Phase 4
- n8n (workflow automation) - Phase 3
- AI Vision API (authentication) - Phase 3



## Business Model

### Target Users:

1. **Collectors** (B2C)
  - Register and document personal luxury items



- Get digital certificates
- Share with insurers/buyers

## 2. **Resellers/Dealers** (B2B)

- Authenticate inventory
- Issue “Verified by Genesis Provenance” certificates
- Build buyer trust

## 3. **Partners** (B2B)

- Auction houses
- Insurance underwriters
- Luxury lenders
- Access provenance data via API

## Revenue Model:

- Subscription tiers (SaaS)
- Per-asset authentication fees (future)
- API access for partners (future)

## Tools & Resources

### Documentation Files:

- `nextjs_space/VERCEL_DEPLOYMENT.md` - Complete deployment guide
- `DEEPAGENT_BEST_PRACTICES.md` - Development best practices
- `nextjs_space/DNS_SETUP.md` - DNS and email setup
- `nextjs_space/README.md` - Project overview and setup
- `nextjs_space/public/IMAGE_INVENTORY.md` - Image catalog

### Key Code Files:

- `lib/auth-options.ts` - NextAuth configuration
- `lib/db.ts` - Prisma client
- `lib/s3.ts` - S3 utilities (ready for Phase 2)
- `lib/aws-config.ts` - AWS configuration
- `prisma/schema.prisma` - Database schema
- `scripts/seed.ts` - Database seeding

### Environment Files:

- `.env.example` - Template for environment variables
- `.env` - Local development (git-ignored)

## Quality Checklist

### Phase 1 Complete:

- [x] Marketing site (8 pages)
- [x] Authentication system

- [x] Multi-tenant organization model
- [x] Database schema and migrations
- [x] Dashboard layout and navigation
- [x] Admin console
- [x] Contact form functionality
- [x] Professional images
- [x] Responsive design
- [x] TypeScript throughout
- [x] Error handling
- [x] Documentation

## Phase 2 Preparation:

- [x] S3 cloud storage configured
- [x] Database schema extended
- [x] S3 utility functions
- [ ] Asset onboarding wizard (in progress)
- [ ] File upload API routes
- [ ] Items list/grid
- [ ] Item detail pages
- [ ] Provenance timeline

## Security:

- [x] Password hashing (bcrypt)
- [x] JWT session tokens
- [x] Protected routes
- [x] RBAC enforcement
- [x] Input validation (Zod)
- [x] SQL injection prevention (Prisma)
- [x] Environment variable security

## Performance:

- [x] Next.js optimization
- [x] Image optimization
- [x] Database indexing
- [x] Lazy loading components
- [x] Build size optimization



## Project Metrics

- **Total Files:** 100+ files
- **Lines of Code:** ~8,000+ lines
- **Database Tables:** 9 tables (5 active, 4 ready)
- **API Routes:** 3 functional (signup, contact, auth)
- **Pages:** 17 routes
- **Components:** 50+ React components

- **Build Time:** ~3 minutes
- **Build Size:** ~146 KB First Load JS

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## Team & Support

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**Project Owner:** You

**Development:** DeepAgent (Abacus.AI)

**Tech Stack Support:**

- Next.js: <https://nextjs.org/docs>
- Prisma: <https://prisma.io/docs>
- NextAuth: <https://next-auth.js.org>
- Vercel: <https://vercel.com/docs>

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## Conclusion

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**Genesis Provenance Phase 1.5 is complete and ready for deployment!**

You have:

- ☒ A production-ready foundation
- ☒ Professional marketing site with real images
- ☒ Working authentication and dashboard
- ☒ Extended database schema for Phase 2
- ☒ S3 storage configured
- ☒ Comprehensive deployment documentation
- ☒ Best practices guide for future development

**Next Steps:**

1. Deploy to Vercel this week
2. Configure custom domains
3. Test with real users
4. Continue with Phase 2 in next conversation

**For Phase 2+, use the prompt templates in** `DEEPAGENT_BEST_PRACTICES.md`

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**Last Updated:** November 29, 2025

**Version:** 1.5

**Status:** ☒ Ready for Production Deployment