# Deployment Architecture

## Infrastructure Overview

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│ Vercel Edge Network │  
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│ │ US-East │ │ US-West │ │ Europe │ │ Asia │ │  
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│ Global CDN (Cached Assets) │  
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│ Next.js Application (Vercel) │  
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│ │ Server Components (SSR) │ │  
│ │ - Render on-demand │ │  
│ │ - Direct Supabase access │ │  
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│ │ Client Components (Browser) │ │  
│ │ - Minimal JavaScript │ │  
│ │ - Supabase client for real-time │ │  
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│ Supabase Cloud │  
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│ │ PostgreSQL │ │ Auth & RLS │ │ Storage │ │  
│ │ (Primary) │ │ │ │ (Files) │ │  
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│ │ PostgREST │ │ Realtime │ │  
│ │ (API) │ │ (WebSocket) │ │  
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## Deployment Process

**Automatic Deployment via GitHub Actions**:

# .github/workflows/deploy.yml  
name: Deploy to Vercel  
  
on:  
 push:  
 branches: [main]  
 pull\_request:  
 branches: [main]  
  
jobs:  
 deploy:  
 runs-on: ubuntu-latest  
 steps:  
 - uses: actions/checkout@v3  
  
 - name: Setup Node.js  
 uses: actions/setup-node@v3  
 with:  
 node-version: '18'  
  
 - name: Install dependencies  
 run: npm ci  
  
 - name: Run tests  
 run: npm test  
  
 - name: Build  
 run: npm run build  
 env:  
 NEXT\_PUBLIC\_SUPABASE\_URL: ${{ secrets.SUPABASE\_URL }}  
 NEXT\_PUBLIC\_SUPABASE\_ANON\_KEY: ${{ secrets.SUPABASE\_ANON\_KEY }}  
  
 - name: Deploy to Vercel  
 uses: amondnet/vercel-action@v25  
 with:  
 vercel-token: ${{ secrets.VERCEL\_TOKEN }}  
 vercel-org-id: ${{ secrets.VERCEL\_ORG\_ID }}  
 vercel-project-id: ${{ secrets.VERCEL\_PROJECT\_ID }}  
 vercel-args: '--prod'

**Database Migrations**:

# Run migrations on Supabase cloud  
npx supabase db push --db-url $DATABASE\_URL  
  
# Or via Supabase CLI (connected to project)  
npx supabase link --project-ref your-project-ref  
npx supabase db push

## Environment-Specific Configuration

**next.config.js**:

/\*\* @type {import('next').NextConfig} \*/  
const nextConfig = {  
 images: {  
 domains: ['your-project.supabase.co'],  
 },  
 async redirects() {  
 return [  
 {  
 source: '/',  
 destination: '/dashboard',  
 permanent: false,  
 has: [{ type: 'cookie', key: 'sb-access-token' }],  
 },  
 ]  
 },  
 async headers() {  
 return [  
 {  
 source: '/:path\*',  
 headers: [  
 {  
 key: 'X-Frame-Options',  
 value: 'DENY',  
 },  
 {  
 key: 'X-Content-Type-Options',  
 value: 'nosniff',  
 },  
 {  
 key: 'Referrer-Policy',  
 value: 'strict-origin-when-cross-origin',  
 },  
 ],  
 },  
 ]  
 },  
}  
  
module.exports = nextConfig