# HBC Technical Architecture

This document outlines the proposed technology stack, hosting strategy, and scalability plan for the Hindu Business Community (HBC) platform.

## Frontend

- Next.js 14+ (App Router, SSR/CSR support)  
- TailwindCSS + ShadCN UI  
- Framer Motion (animations)  
- next-intl for multilingual support

## Backend / BaaS

- Supabase (PostgreSQL with RLS, Auth, Realtime)  
- Supabase Edge Functions (custom logic)  
- Supabase Storage (media)  
- Vercel for hosting UI + autoscale CDN

## Payments

- Razorpay for India  
- Stripe for global  
- Supabase Edge Functions to handle webhook and payment logs

## Security & Backup

- Role-Based Access via RLS  
- Supabase managed backups  
- OTP auth, encrypted transport  
- AuditLog table for sensitive actions

## Notifications

- Supabase Realtime for lead alerts and user notifications  
- Optional email with Resend or SMTP relay

## Scalability

- Supabase Pro handles up to 100k users  
- Vercel CDN and cache scaling  
- DB indexing + read optimization  
- Edge Function load isolation

## Extensibility

- Modular architecture  
- Easily support mobile apps  
- Future integration: APIs, GraphQL, BI dashboards

See attached architecture diagram.

