Project Details

This platform allows users to search, bid, and communicate on real estate listings globally. Users interact through web/mobile clients. The platform aggregates data from various third-party sources and enables real-time communication between buyers and sellers.

Architecture Decisions

To ensure high availability and scalability, we chose a multi-region, multi-AZ deployment using AWS. Application services run on ECS or EKS, behind Application Load Balancers. Real-time chat is handled via WebSocket services deployed within the app layer. Media content is served using CloudFront CDN and stored in S3. A managed RDS cluster supports structured queries, and Redis handles caching and session management.

| User Load | Compute (ECS/EC2) | RDS/Database | Redis Cache | S3 Storage | Bandwidth (GB) | Est. Monthly Cost |
| --- | --- | --- | --- | --- | --- | --- |
| 100 concurrent | $50 | $30 | $10 | $10 | 50 | ~$100 |
| 10,000 concurrent | $2,000 | $700 | $300 | $500 | 2,000 | ~$3,500 |
| 100,000 concurrent | $10,000 | $3,000 | $1,500 | $2,500 | 10,000 | ~$17,000 |
| 100k monthly | $500 | $100 | $50 | $50 | 200 | ~$700 |
| 1M monthly | $5,000 | $700 | $300 | $1,000 | 5,000 | ~$7,500 |
| 100M monthly | $200,000 | $50,000 | $30,000 | $50,000 | 1,000,000 | ~$330,000 |

4. Cost Estimation Table

| User Load | Compute (ECS/EC2) | RDS/Database | Redis Cache | S3 Storage | Bandwidth (GB) | Est. Monthly Cost |
| --- | --- | --- | --- | --- | --- | --- |
| 100 concurrent | $50 | $30 | $10 | $10 | 50 | ~$100 |
| 10,000 concurrent | $2,000 | $700 | $300 | $500 | 2,000 | ~$3,500 |
| 100,000 concurrent | $10,000 | $3,000 | $1,500 | $2,500 | 10,000 | ~$17,000 |
| 100k monthly | $500 | $100 | $50 | $50 | 200 | ~$700 |
| 1M monthly | $5,000 | $700 | $300 | $1,000 | 5,000 | ~$7,500 |
| 100M monthly | $200,000 | $50,000 | $30,000 | $50,000 | 1,000,000 | ~$330,000 |