

# Multi-Region Active-Active Decision Checklist

Is Multi-Region Worth the 2-3x Cost?

## Section 1: Requirements Check

Must meet ALL to justify multi-region active-active.

- Global user base across multiple continents
- Sub-100ms latency required for **writes** (not just reads)
- High availability critical (region failure unacceptable)
- Traffic volume justifies 2-3x infrastructure cost

## Section 2: Cost Estimation

Cost area	Rule of thumb	Your estimate
Infrastructure	Current monthly cost × 2-3 (duplicate across regions)	INR / USD _____
Data transfer	GB transferred × regions × \$0.02-0.10 per GB	GB/mo _____ × \$ _____ × regions _____ = _____
Development	Additional 20-30% development time for conflict handling	+ _____ %
Operations	Additional 30-40% ops overhead (monitoring, maintenance)	+ _____ %

Total estimated increase: \_\_\_\_\_ % over single-region

## Section 3: Latency Calculation

- Current single-region latency: \_\_\_\_\_ ms
- Cross-region network latency: ~100-200ms (US-EU)
- Expected multi-region latency: ~10-50ms (regional)
- Improvement: \_\_\_\_\_ ms saved per request

Worth the cost?  YES  NO

## Section 4: Alternatives Checklist

Before multi-region, have you considered:

- Single region + CDN (handles reads globally)
- Single region + edge computing (some compute at edge)
- Active-passive multi-region (standby, not active-active)
- Geographic sharding (separate regions for separate markets)

## Section 5: Decision

Based on the analysis above, choose one:

- Multi-region active-active justified** → Proceed
- Single region + CDN sufficient** → Use simpler approach
- Need more analysis** → Gather latency requirements data

*Tip: In interviews, state the **cheapest alternative** that meets requirements before proposing active-active.*