

# Complete System Design Communication Checklist

Eight steps to clear, confident interview explanations

## 1 Step 1: Clarify the Problem 5-7 min

- Restate the problem in your own words
- Separate must-have vs nice-to-have
- Extract scale + constraints (users, RPS, latency)
- Confirm understanding with the interviewer

## 2 Step 2: Set the Context 1-2 min

- Restate scale parameters (reads/writes ratio)
- Identify usage patterns (power-law, bursty traffic)
- Surface critical constraints (e.g., availability > consistency)

## 3 Step 3: Explain High-Level 2-3 min

- Draw minimal architecture (3-6 boxes only)
- Label each component clearly
- Connect with simple arrows
- Narrate the core flow (one use case at a time)
- State what's missing (gaps + next additions)

## 4 Step 4: Introduce APIs & Data 3-4 min

- Define endpoints + payloads
- Explain processing logic (sync vs async)
- Trace a request end-to-end through the system

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## 5 Step 5: Communicate Trade-offs 30-50s/decision

- State the decision
- Explain what you gain (latency/availability/throughput)
- Acknowledge what you sacrifice
- Connect to requirements and context

## 6 Step 6: Handle Scalability 3-5 min

- Identify bottlenecks by component (DB/app/cache/network)
- Propose scaling solutions with metrics (RPS, GB, Gbps)
- Acknowledge hard problems + mitigations

### Quick Reference: 45-minute time guide

- |               |        |                |       |
|---------------|--------|----------------|-------|
| • Clarify:    | 6 min  | • Context:     | 2 min |
| • High-level: | 3 min  | • APIs/Flow:   | 4 min |
| • Trade-offs: | 6 min  | • Scalability: | 6 min |
| • Follow-ups: | 10 min | • Closing:     | 3 min |
| • Buffer:     | 5 min  |                |       |

## 7 Step 7: Respond to Follow-up 60-90s/question

- Acknowledge the question (paraphrase)
- Anchor back to existing design
- Explain the incremental change (number changes)
- Call out new trade-offs and mitigations

## 8 Step 8: Close with Summary 1-2 min

- Summarize core architecture (components + data flow)
- Recap 2-3 key trade-offs
- Mention future evolution / extensions
- Ask: "Is there anything you'd like me to dive deeper into?"