

Service Discovery - Discussion Topics

Architecture & Design

1. When to use client-side vs server-side service discovery?

- Trade-offs between complexity and flexibility
- Impact on client libraries and coupling
- Load balancing considerations

2. How do you choose between Consul, etcd, and ZooKeeper?

- Consistency models (CP vs AP)
- Operational complexity
- Feature sets and ecosystem support

3. What are the risks of DNS-based service discovery?

- TTL and caching issues
- Propagation delays
- Load balancing limitations

Real-World Scenarios

1. Design service discovery for a multi-region deployment

- Regional vs global registries
- Failover strategies
- Latency-aware routing

2. How would you handle a service registry failure?

- Graceful degradation

- Local caching strategies
- Recovery procedures

Health Checking & Reliability

1. What's your approach to health check design?

- Shallow vs deep health checks
- Check frequency and timeout tuning
- Cascading failure prevention

2. How do you prevent flapping services?

- Debouncing strategies
- Gradual rollout/rollback
- Circuit breaker integration

Advanced Topics

1. Service mesh vs traditional service discovery: When to use each?

- Sidecar proxy trade-offs
- Operational complexity
- Feature requirements

2. How do you handle service discovery during deployments?

- Blue-green deployment integration
- Canary release support
- Connection draining strategies