

Performance Architecture

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1 Performance Model

Key Metrics:

Response Time:

p95: [target ms]

p99: [target ms]

Throughput:

Average: [req/s]

Peak: [req/s]

Resource Usage:

CPU: [target %]

Memory: [target GB]

```
}
```

```
[Traffic] --> [CDN]
[CDN] --> [Load Balancer]
[Load Balancer] --> [Cache Layer]
[Cache Layer] --> [Application Tier]
[Application Tier] --> [Database]
@enduml
```

3 Scalability Strategy

Horizontal Scaling:

Auto-scaling:

Triggers: [metrics]

Thresholds: [values]

Load Distribution:

Algorithm: [method]

Health Checks: [criteria]

Vertical Scaling:

Resource Allocation:

CPU: [limits]

Memory: [limits]

Growth Plan:

Current: [size]

Next: [size]

2 Performance Architecture

```
@startuml
package "Performance Components" {
    [Load Balancer]
    [Cache Layer]
    [Application Tier]
    [Database]
}
}
```

```
cloud "Users" {
    [Traffic]
```

4 Performance Testing

Load Tests:

Scenarios: [list]

```
Duration: [time]  
Success Criteria: [metrics]
```

Stress Tests:

```
Breaking Points: [limits]  
Recovery Time: [target]  
Failure Modes: [list]
```