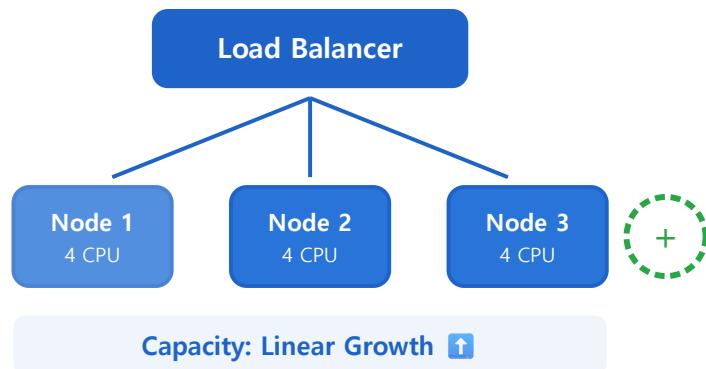
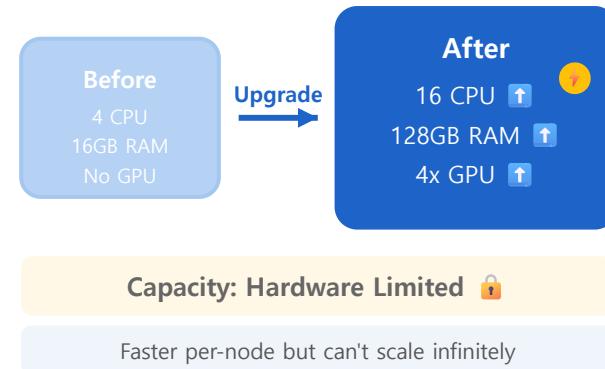


Scalability Patterns

↔ Horizontal Scaling



↔ Vertical Scaling



☒ Sharding Strategies

Hash-based

Uniform distribution

Range-based

Date/category sharding

Geo-based

Regional data locality

🛡 High Availability

✓ 3x replication factor

✓ Auto-failover in <5s

✓ 99.99% uptime SLA