

**CCSP-01
Architectural
Concepts**

1. Cloud Characteristics

NIST, 5 characteristics

- Broad Network Access: bandwidth should not be a bottleneck, through advanced technologies and techniques, bandwidth should be virtually unlimited
- On-demand Services: customers should be able to scale their compute/storage resources without CSP involvement
- Resource Pooling: CSP shares physical resources across multiple tenants. Can include storage, processing, memory, and network bandwidth
- Rapid Elasticity: capability to cope with demand peaks
- Measured Service: utility based billing i.e. subscription based

Cloud Drivers, why cloud?

- Your Name/Job Role
- Scalability
- Mobility
- Elasticity
- Cost-Savings
- Risk Transference/Reduction
- Reduced Infrastructure
- Less Overhead
- Pay as you go
- Shifting Capital Expenditure to Operational Expenses

2. Business Requirements

3. Cloud Evolution, Vernacular, and Models

4. Cloud Computing Rolas & Responsibilities

5. Cloud Computing Definitions

6. Foundational Concepts of Cloud Computing

7. Related and Emerging Technologies