Appendix C

Mapping Mechanisms to Characteristics

The following table summarizes the direct relationships between the cloud characteristics introduced in Chapter 4 and cloud computing mechanisms covered in Chapters 7, 8, and 9.

Cloud Characteristics	Cloud Mechanisms
On-Demand Usage	Hypervisor
	Virtual Server
	Ready-Made Environment
	Resource Replication
	Remote Administration Environment
	Resource Management System
	SLA Management System
	Billing Management System
Ubiquitous Access	Logical Network Perimeter
	Multi-Device Broker
Multitenancy/Resource Pooling	Logical Network Perimeter
	Hypervisor
	Resource Replication
	Resource Cluster
	Resource Management System

Cloud Characteristics	Cloud Mechanisms
Elasticity	Hypervisor
	Cloud Usage Monitor
	Automated Scaling Listener
	Resource Replication
	Load Balancer
	Resource Management System
Measured Usage	Hypervisor
	Cloud Usage Monitor
	SLA Monitor
	Pay-Per-Use Monitor
	Audit Monitor
	SLA Management System
	Billing Management System
Resiliency	Hypervisor
	Resource Replication
	Failover System
	Resource Cluster
	Resource Management System

Table C.1

Cloud characteristics are mapped to cloud computing mechanisms. Essentially, the use of the listed cloud computing mechanisms supports the realization of the corresponding cloud characteristics.