Operating System
For The Cloud

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What is the Cloud Computing?

A massive geo-distributed computer

Available as a service
Cloud computing strives for the cloud computing ideals
Our Vision

To deliver a cloud operating system that supports developing and managing scalable, available cloud services with lower OPEX/CAPEX and greater agility
Our Operating System Metaphor

Managing Resources

Providing Abstractions

Traditional Operating System
Windows Azure Pillars

1. Scalable Hosting
2. Automated Service Management
3. Scalable, Available, Durable Storage Service
4. Rich Developer Experience
Scalable Hosting

- Efficient, Hypervisor-based Virtualized Computation
- Scale-out vs. Scale up
- Add and remove capacity on demand
- Security is key for this environment

Provides secure on-demand compute with efficient utilization
Automated Service Management

- Automates the entire lifecycle of your service
- Assigns from a shared pool of hardware resources
- Maintains the health of your service
- Declarative service model guides service management

Managing the lifecycle of your application per your specification

Windows Azure
Manage Services, Not just Servers

- Roles and Groups
- Channels and Endpoints
- Interfaces
- Configuration settings

You provide your code and the service model
Scalable, Available, Durable Storage Service

- Tables, blobs, queues, streams
- Low-cost commodity hardware
- Adaptive replication, caching, and load balancing
- High availability without user intervention

On-demand geo-distributed storage at low cost
Rich Developer Experience

- ‘Cloud in a box’ desktop development environment
- Supports both native and managed code
- Familiar Visual Studio technologies
- Monitoring and diagnostic support

Your skills transfer
Write, test, debug your code on your desktop
Designed for Interoperability

- Command-line interfaces
- REST protocols
- XML file formats
- Support for all languages

Interoperate with other clouds with no data lock-in
Extending the Enterprise

Publish to Cloud or Enterprise

Secure Cloud Federation

Public Cloud

Private Cloud

Enterprise

System Center
Realizing the Vision: Windows Azure

- **Quickly** get your service up and running.
- **Confidently** keep your service up and running
- **Efficiently** deliver your service
- **Seamlessly** extend the enterprise

http://www.azure.com