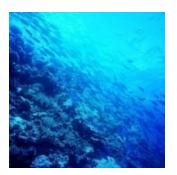




# Operating System For The Cloud

Amitabh Srivastava Senior Vice President Microsoft

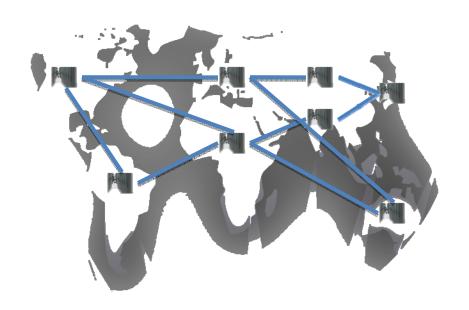




#### What is the Cloud Computing?



#### A massive geo-distributed computer



Available as a service



## Cloud Computing Ideal Available Efficient Infinite On-Demand Ubiquitous

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**





#### Windows Azure Pillars













#### 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

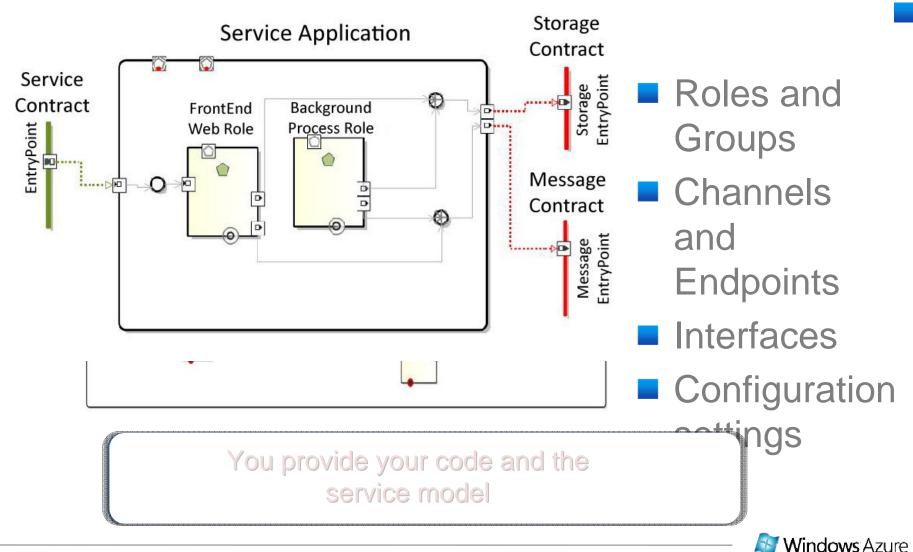
Manages the lifecycle of your application per your specification



#### Manage Services, Not just Servers







#### 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



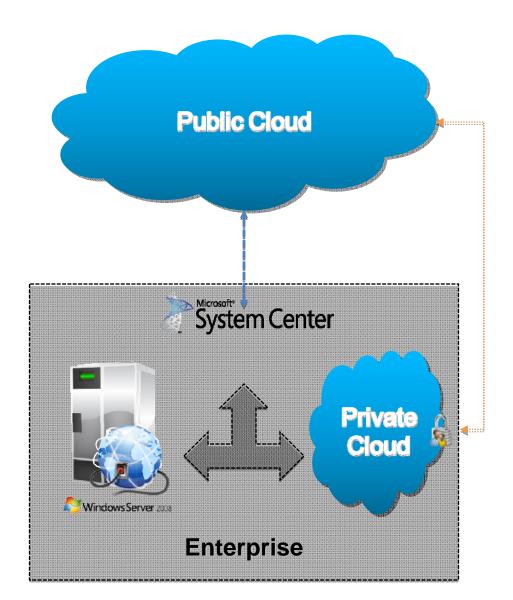
#### Extending the Enterprise







Publish to Cloud or Enterprise



Secure Cloud Federation



#### 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





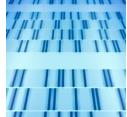


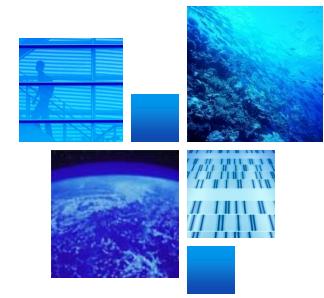
### **Windows** Azure











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