IBM Cloud Computing Case Studies

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As the world gets smarter, demands on the infrastructure will grow.

- Smart traffic systems
- Intelligent oil field technologies
- Smart food systems
- Smart healthcare
- Smart energy grids
- Smart retail

- Smart water management
- Smart supply chains
- Smart countries
- Smart weather
- Smart regions
- Smart cities
A Crisis of Complexity. The Need for Progress is Clear.

To make progress, delivery organizations must address the server, storage and network operating cost problem, not just CAPEX.

Source: IBM Corporate Strategy analysis of IDC data
What is Cloud Computing?

• “Cloud” is a new consumption and delivery model inspired by consumer Internet services.
• From a technical perspective, Cloud leverages virtualization, among other things, which enables:
  – Abstraction of resources
  – Dynamic right sizing
  – Rapid provisioning
• From a business perspective, Cloud enables:
  – Economies-of-scale
  – Self-service for end users
  – Sourcing options for consumers of cloud services
Major Factors Driving Cloud Economics

Infrastructure Leverage

- Virtualization of Hardware
  - Drives lower capital requirements

- Utilization of Infrastructure
  - Virtualized environments only get benefits of scale if they are highly utilized

Labor Leverage

- Automation of Management
  - Take repeatable tasks and automate

- Standardization of Workloads
  - More complexity = less automation possible = people needed
On-ramps to Cloud Computing Services

Software as a Service
- LotusLive
- Industry specific services (Partners)
- Cross industry services (SO)

Platform as a Service
- SOA – componentized & flexible
- Cloud middleware

Infrastructure as a Service
- Dynamic Infrastructure
- Green, virtualized & scalable
- Optimized for security, transactions, data integrity

Services
Development
Enterprise IT
IBM Cloud Computing Global Leadership

2007

Client Engagements

IBM Services & Products

Academic Initiatives: Skills & Research

IBM Cloud Computing Centers

2009

IBM Services & Products

- IBM Cloud Computing Centers
- IBM Cloud Services Initiative
- NEDC Leadership Centers
- Raleigh Cloud Delivery Center
- Smart Business Platform
- iDataplex Systems for web 2.0
- Blue Cloud offerings

Client Engagements

- SOGETI
- SOFTEX
- VNTT
- WUXI・CHINA
- iTricity
- IBM, NSF & Google

IBM Cloud Computing Centers

- USA
- Ireland
- South Africa
- Greater China
- Japan
- Korea
- Vietnam
- India
- Brazil

Academic Initiatives: Skills & Research

- IBM, NSF & Google
- Georgia Tech
- The Ohio State University
- Facebook
- Cloud Expert Group

Develop new autonomic Cloud Computing technologies

Hadoop Workshop
Worldwide Cloud Labs

- Ireland (Innovation Center)
- Greater China (SWG, S&D)
- South Africa (S&D – Africa Innovation Center)
- Vietnam (S&D, Technical Sales)
- Japan (SWG, Tokyo)
- Brazil (S&D, Brazil SW Lab, Sao Paolo)
- Korea (S&D, Korea SW Solutions Lab)
- India (SWG, India SW Lab)

Established nine Cloud Labs worldwide
- Drive thought leadership through client wins & announcements
- Perform in-market experimentation & enable new business models
- Transfer assets to product development
- Build critical skills, best practices and propagate knowledge
- Provides cloud infrastructure for customer pilots
- 20 Cloud patents filed
IBM Cloud Labs Accelerating Global Adoption

IBM Cloud Labs

Silicon Valley, California

Google

Dublin, Ireland

Bangalore, India

São Paulo, Brazil

Johannesburg, South Africa

Beijing, China

Hanoi, Vietnam

Hong Kong, S. Korea

Tokyo, Japan

Other IBM Cloud Centers

IBM Cloud Labs
**Business Case Results**: IBM TAP Cloud Deployment

**Without Cloud**

- New Development
- Software and Other Costs
- Labor Costs (Operations and Maintenance)
- Depreciation (and Amortization)

**With Cloud**

- Liberated funding for transformation investment or direct saving
- New Development (for Business Enabling Capabilities)
- Software and other costs
- Labor Cost (-80.7%)
- Depreciation (-88.7%)

**Business Case Results**

Annual savings: $3.2m (-79%) $4.0M to $0.8M

Payback Period: 46 days

Note: 3-Year Depreciation Period with 10% Discount Rate
Case Study: SinoChem Private Cloud

Customer requirement:
• Three data centers supporting worldwide business should be integrated
• Have the status of system resources occupied
• Increase resource utilization rate to reduce the cost
• Innovation always be the drive of company

Blue cloud enterprise datacenter solution
- Business oriented IT service model
- To be a service oriented IT platform
- Shared IT resource usage model
- Dynamic create/configure/reclaim resources

Benefit
- Elevate business responsibility, catch marketing
- Boost IT efficiency, to be a GREEN datacenter
- Simplify IT management, reduce cost
- Provide a platform for business innovation
Case Study: WuXi Software Park – Development and Testing Platform

Customer requirements
- Provide a common IT platform and tools for software outsourcing companies
- Differentiate from traditional software park model to provide more value added services
- Build a more green IT environment through resource sharing
- Enable collaboration and innovation among end clients

Blue Cloud development & testing solution
- Consolidated develop environment for software park
- Automated development platform
- Development management and quality management
- Collaboration development platform
- IT resource auto-management
- Pay-by-use charging model

Benefits
- Pay-by-use can reduces capex investment and operation cost
- Shared resource and power saving match China central government's mandate for green IT
Case Study: DongYing Yellow River Delta Cloud Center

Customer Requirements

- The advanced public services platform for Dongying Smarter City.
- Accelerating building modern service industries and information society.
- Expand services to cover other cities and regions in the Shangdong province.

DongYing Cloud Center will provide:

- Software development and Test platform
- IDC service
- Innovation platform
- Training center
- E-government
- Digital city
- Host of application services.
Thank you!

For more information, please visit:
Http://www.ibm.com/cloud

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