

Cloud Computing

CONCEPTS AND STRATEGIES

Prashant Athalye

CEO

Graceworks Information Systems Pvt Ltd

graceworks

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SMBs and the Cloud: Creating a More Level Playing Field

Small and Medium-sized Businesses (SMBs) have remained slower to consume technological functions and leaving others to manual processing. In fact, according to the NASSCOM 'Deconstructing the Cloud: The New Growth Frontier for the Indian IT-BPO Sector' SME overall global IT spend in 2010. Computerisation by SMBs has typically been restrained

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Cloud computing potential highlighted

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SEARCH RESULTS FOR INFOSYS'S GOPALAKRISHNAN TO HEAD GOVT'S

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Infosys's Gopalakrishnan to head govt's cloud computing cor
July 8, 2012
Cloud computing is one of the thrust areas of the proposed National IT Policy that envisions to increase revenues of IT and ITES industry from USD 100 billion at present to USD 300 billion by 2015.

Cloud Computing You need to run your business in the cloud — where do you start?

VIEW FREE RESEARCH
10 Cloud Computing Trends

Cloud computing is a disruptive phenomenon, with the potential to make IT organizations more responsive than ever. Cloud computing promises economic advantages, speed, agility, flexibility, infinite elasticity and innovation. How will you phase your organization into cloud computing?



what is Cloud Computing

Demystify Cloud Computing

- ✓ What it is and what it is NOT
- ✓ Why does it exist : goals / benefits
- ✓ What are the options
- ✓ How to evaluate – some case studies

Some definitions ...

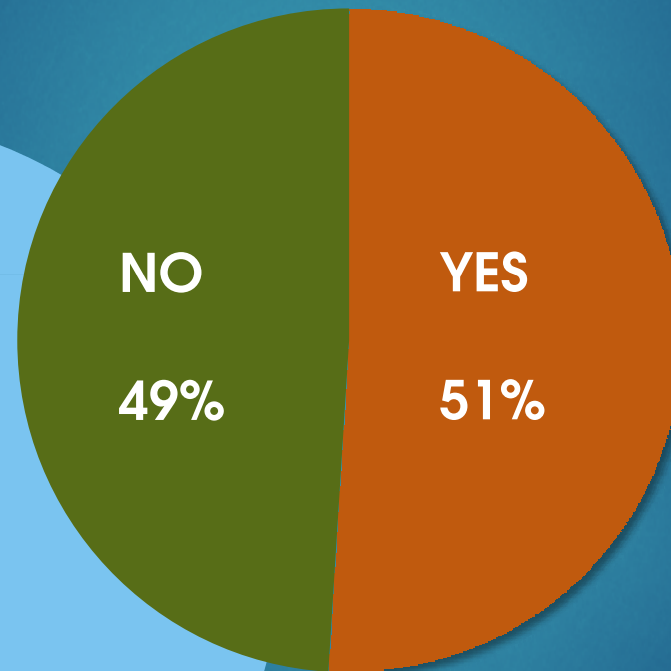


Cloud computing is a concept used to describe a variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the Internet



Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction

“Does stormy weather interfere with Cloud Computing”



Source : Aug 2012 Survey from Wakefield Research for Citrix

- 29% people believe that its something to do with actual cloud
- 54% say that they never use cloud but on further probing it turns out that 95% actually use the cloud without being aware of it.
- 20% admit that they pretend to know what it is but actually do not.
- 50% think the other person referring to cloud in conversation really does not know what it is either

Cloud Computing has nothing to do with
actual clouds

Cloud computing does not mean servers
placed in satellite orbiting earth

Cloud Computing – like all other
innovations in computing history –
has evolved out of real needs

PC population exploded

Need to better utilize resources was felt

1950-1980

Mainframes

Centralized hardware

Software was centralized

User was confined to one department

1980-1990

PCs

Hardware on each desktop

Everyone became a user.

Software was also personalized (Lotus 1-2-3)

1990-2000

LAN/WAN

INTERNET
VPN
Virtualization

Personal and enterprise computing intertwined

Internet
People used software on unknown computers running unknown OS and unknown apps

2000+

Internet

Massive deployment of servers and other computing resources

Birth of Cloud Computing

Beginning of Cloud Computing

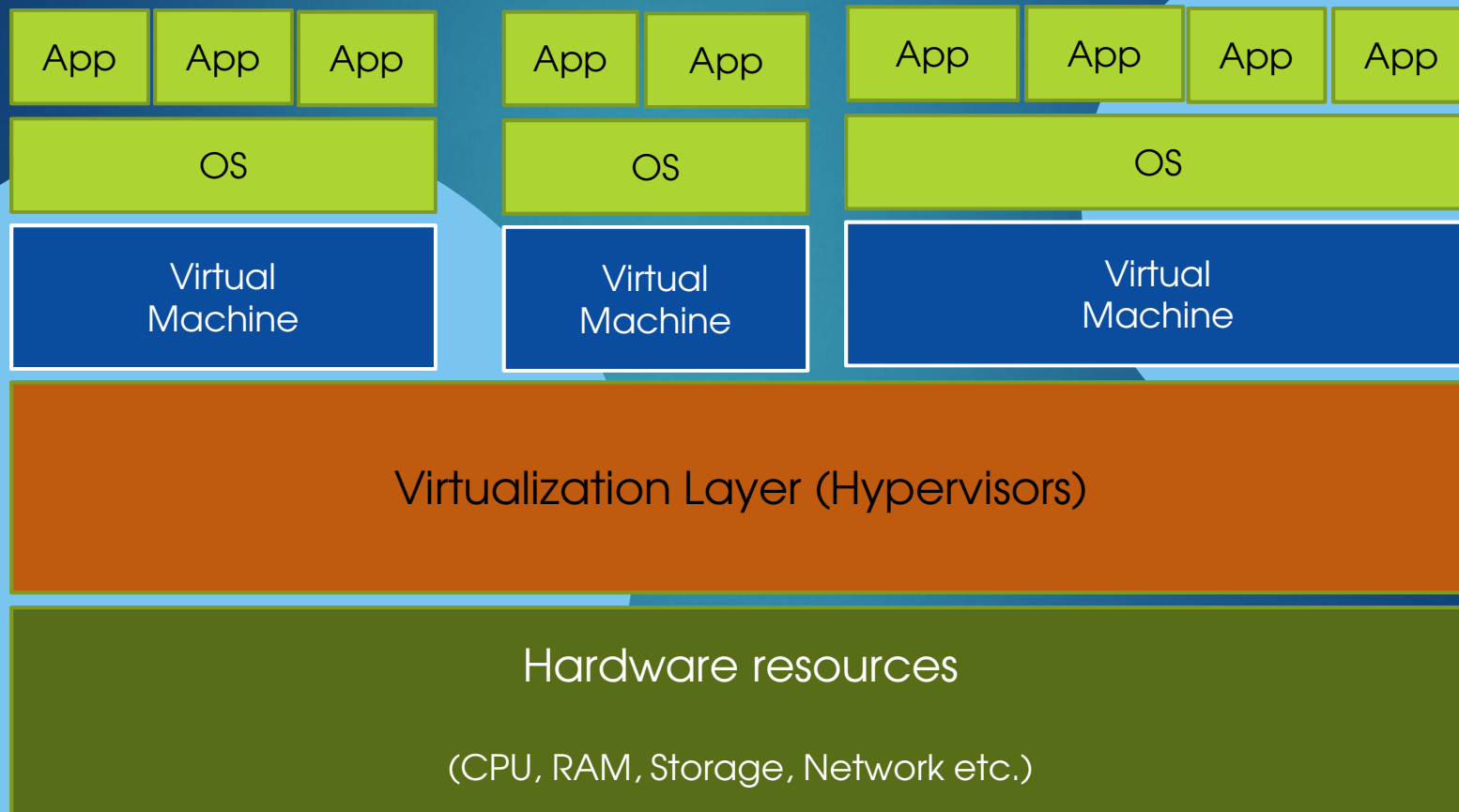
Delivery of computing resources as utility without having to know the implementation details

Computation may someday be organized as a public utility.
John McCarthy 1960s

The Challenge of the Computer Utility.
Douglas Parkhill 1966

In the book, Parkhill thoroughly explored many of the modern-day characteristics of cloud computing (elastic provisioning through a utility service) as well as the comparison to the electricity industry

Quick Technical rundown



Cloud Computing

- ▶ Shared pool of computing resources such as servers, software, storage
- ▶ Accessed via network / internet
- ▶ Can be provisioned on-demand

- ▶ How these resources are built is no more important or relevant while using them.
- ▶ The focus is on using these resources rather than building and managing them

Delivery models - IaaS

Infrastructure as a Service

Fundamental building block of cloud computing.
Physical resources are virtualized and offered as service on-demand.

- Servers
- Network
- Storage



Can be utilized as a complete replacement of physical servers (and other resources) for running any application such as ...

- Tally, SAP etc.
- Mail, Database
- Anything

Delivery models - PaaS

Platform as a Service

Core services that can be used to develop applications by developers are offered as a service.

- Development building blocks
- Database services
- Authentication services

Microsoft Azure

Google App Engine

Amazon Web Services

Delivery models - SaaS

Software as a Service

This is the most widely offered form of cloud computing.

Specific functionality is offered to the end user on-demand basis. There are no installations and client side requirements. Just subscribe and use.

Gmail - Email services

maxteam - Staff time management, Practice Management & CRM

MEDNET - Practice management for medical professionals

Benefits to look for

Rapid provisioning

Flexibility to scale up or scale down anytime

No capital expenditure or long term commitments

Reliability and High performance

High security

Location Independence

SLAs

Lower costs

Cloud Computing usage in real life scenario

Some case studies

Case study – Outsourcing infrastructure hassles

When a large Fuel and Chemicals company wanted to upgrade their SAP servers in 2011, following were key issues..

1. Cost of procurement

- Server and network hardware
- OS licenses
- Backup devices and their licenses

2. Space occupied by server room

3. Ever increasing cost of IT staff and difficulty in retaining them.

4. Lack of confidence on IT staff ability to manage high tech setup

5. Risk of oversizing or under sizing the requirements due to unpredictability of the market conditions

Case study – Outsourcing infrastructure hassles

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Migration to zencloud helped them to...

- Zero capex
- Flexible server sizing which could be increased only when needed
- 24x7x365 availability means even overseas offices could be served
- Redeploy existing IT staff to other functionality
- Redundancy and fault tolerance at no extra cost
- Overall more than 20% cost saving

Case study – Peak load handling, security

A large university in Maharashtra was considering best options to bring end to their examination results processing woes.

- Loads spikes that are several times higher than normal usage during exam time and registration times
- Lack of reliability of internal staff
- Lack of guaranteed processes of protecting exam data

Migration to zencloud helped them to...

- Easily manage the peak loads by scaling up only during exam times
- Multistage, automated and auditable backup processes guaranteed the data safety.
- Tight security provisions kept the data safe from reach of unscrupulous elements

Case study – centralized management

A medium size CA firm was looking for a better option for coordinating with their client for handling their accounts on Tally.

- They were fed up exchanging data with client on email, pen drive
- This exchange often resulted in overwriting of data
- The client's branch offices made life even more difficult
- There was no reliable data backup mechanism

Migration of Tally to zenCLOUD helped them to...

- Easy access to common central installation of Tally.
- There was no need to train the end users since for them absolutely nothing changed.
- Data remained available centrally so no more emails or pen drives
- The data safety was guaranteed by robust backup procedures.

Case study – data security

Real Estate development company had decided to deploy **maxteam** for enabling team collaboration. But there were some challenges

- 24x7x365 access to **maxteam** was critical for its success.
- The data was sensitive so access was required to be limited to their own offices and specific mobile users.
- Low confidence on internal IT team to manage this critical installation

Migration to zencloud helped them to...

- 24x7x365 availability is by default
- The server access security was tailored to their need to ensure access from only their offices and from specified devices.
- 2 factor authentication option of **maxteam** helped add one more secure layer

Case study – Multicity office consolidation

A famous nutrition consulting company used **MEDNET** for their practice management. But when the business increased and they set up various branches in major metros across country...

- Keeping patient data in sync across branches was a huge challenge
- Patient data had to be available everywhere for better servicing
- Getting qualified IT staff at each branch location was a challenge

Migration to zencloud helped them to...

- Make MEDNET available to all branches without need of replication.
- IT staff was not required for managing the servers and critical data.
- They could roll out other branches faster since there was nothing to be installed locally.

Summary

Cloud Computing is about using computing resources instead of building and maintaining them

Managed Servers and Storage are most fundamental blocks

Any cloud computing platform must give these benefits

1. Rapid provisioning
2. Flexibility to scale up or down anytime
3. High quality infrastructure and processes
4. Location independence
5. SLAs

Thank you

Prashant Athalye