# Cloud Computing

## NUTech Meeting

## February 5, 2009

# Overview

- What is it?

- How does it work?

- Who cares?

- What are the Advantages & Disadvantages?

- Future ofthe technology?

- Discussion

# Yes there is a Santa Clause!

# How does it work?

# Hardware Adjustment?

- Client Computers
  - Box
  - USB Ports
  - LAN & wireless
  - Flash memory
  - 50GB storage
  - Open Office
  - Linux
  - Consumes 2 watts TOTAL

# What is it?

- The *cloud* is the term for networked computers that distribute processing power, applications, and large systems among many machines.

# What is it?

- *Cloud computing* is specialized data centers that host thousands of servers

- What is CC?
  http://www.youtube.com/watch?v=6PNuQHUiV3Q

# What is it?

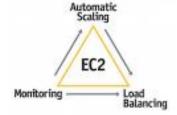- Cloud computing service types:
    - Applications

    - Infrastructure

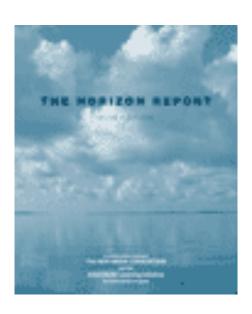    - Computing resources minus development platform layer

# Cloud Services

# Who cares?

- #1 Top IT Trend for education

- To The Cloud and Beyond

  "Watch for significant moves in the university space in the use of Internet-based, or "cloud," technology that goes well beyond e-mail services."

  - <http://www.insidehighered.com/layout/set/print/views/2009/01/06/gonick>

# Who Cares?

- 2009 Horizon Report



- 200 leaders in business, industry & education
- 1st Adoption Horizon
- Mobiles & CC

"Wholly different ways of thinking about computers, software, and files"

# Use: Email in the Cloud

- Designed to free Web hosters and service providers from the capital and administrative burden of managing email security, which continues to rise due to unpredictable levels of spam.

# Use: Yahoo Research

# Advantages?

- Scalability
- Instant / Real Time
- Better Hardware management
- No hard drive required
- Easier to share content; social networking
- Easier data security management
  - All data is located on central server
- Save $$$ / Cost Effective
  - Pay for only what you use; pay per use
- Green & sustainability
  - Reduction of energy consumption & $CO_2$ emissions
  - Resizable computer power

# Disadvantages?

- TRUST
  C-based apps are services offered by companies and services providers in REAL TIME
- No hard drive required
  - Some apps or hardware require connected hard drives
- Peripherals may not work
- Relies 100% on network connections
- Overkill for the average user
- Bandwith

# Future of CC?

- All IT companies are throwing resources into it

- Causing paradigm shift

- Cloudworkers?

- Poised Disciplines:  Science & Media studies

- 2 options for implementation

  - Host it within your network

  - Proprietary
    Use devices from companies that provide server storage

# QUESTIONS, COMMENTS?

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