Putra Business School

GSM 5170 Management Information System

Dr. Rusli Haji Abdullah

Lecture 8

Case Study 1: Public "Personal" Clouds

Case Study 2: Denver Health Operates with a private cloud and thin clients

25th March 2014

Uma Devi Muniyandi: GM04926

Case Study 1: Public "Personal" Clouds

1. ***Do some research on Amazon's Cloud Drive. What is the amount of free storage space? What is the annual cost for additional storage? What about Apple's iCloud? Is it still free? Does Microsoft charge anything for use of its SkyDrive cloud servicer?***
    a. Amazon Cloud Drive is a web storage application from Amazon. This storage space is accessible up to eight specific devices. These devices could be mobile devices, different computers with different browsers on the same computer.
    b. As per Amazon cloud drive the first 5GB is provided for free;
    c. The additional space will be cost $0.50 for per GB in a year.
    d. Apple iCloud is a cloud storage and cloud computing service from Apple Inc. launched on October 12, 2011.
    e. Yes. Apple will provide 5 GB of iCloud storage for free.
    f. Yes. The 25 GB freebie is going away, to be replaced by a new 7 GB free plan. Additional storage costs $20 per year for 10 GB, $40 per year for 20 GB and $100 per year for 50 GB.

2. ***Putting all your personal information in the cloud means letting go of some control over information like your tax files, personal photos that you might not want anyone else to see, term papers you're currently writing and so on. What is your level of concern for the security of these personal digital assets in the cloud? Explain why your level of concern is high or low.***
    a. Security issues have been categorized into sensitive data access, data segregation, privacy, bug exploitation, recovery, accountability, malicious insiders, management console security, account control, and multi-tenancy issues. Solutions to various cloud security issues vary, from cryptography, particularly public key infrastructure (PKI), to use of multiple cloud providers, standardization of APIs, and improving virtual machine support and legal support. Cloud computing offers many benefits, but is vulnerable to threats. As cloud computing uses increase, it is likely that more criminals find new ways to exploit system vulnerabilities. Many underlying challenges and risks in cloud computing increase the threat of data compromise.
    b. Thus my concern is average towards the security for the cloud computing. In my opinion security concerns must be addressed to maintain trust in cloud computing technology.

3. ***As we move more of our personal storage needs to the cloud, will computers really need disk storage space? Is it possible that we're in the early stages of an outrageous industry transformation? Who are the major manufactures of disk storage for personal computers and laptops?***
    a. The main reason space is not a big concern today is the advent of cloud computing and steaming media. Office documents and applications don't require much disk space. Media takes up the bulk of your storage. Our media is streamed to us via YouTube. Our pictures can be uploaded and stored on popular photo hosting sites like Flickr, Photo bucket, and Picasa web. Google is even offering a consolidation of documents with their release of Google Docs. With Google Docs, you can store all your word and spreadsheet

documents online. Internet and Wi-Fi have been widely available these last few years and online file storage have become more common

b. The Industrial Revolution marks a major turning point in history almost every aspect of daily life was influenced in some way. Modern productivity researchers have shown that the period in which the greatest economic and technological progress occurred. Now expect any information or service they desire to be available to them, in context and at their moment of need. Users are cognitively and behaviorally ready to embrace wearable technology as an extension of mobility

4. ***If you choose to store all your personal information in the cloud, you'll need a personal continuity plan, muck like organizations have business continuity plans in case of some sort of disaster. Suppose that right now you begin storing all your personal information only in the cloud. Of that information, what will you also back up onto a flash drive? How often would you perform the backup process? How often do you currently back up information on your computer's hard drive?***
    a. Yes, Personal continuity is the amount of time it takes an individual to effectively manage the safety and security. I will back up the personal important files which can be leverage by others. As in industry I will perform the backup process on weekly basis. In term of hard drive I will perform on monthly basis.

5. ***Do some research on personal cloud providers. What sort of service level agreement (SLA) do they offer? Are you willing to store your information with a personal cloud provider that offers no SLA? Why or Why not?***
    a. Service-level agreements (SLAs) for cloud storage capacity typically provide guarantees in terms of uptime but specify little in terms of data availability or data protection. Corporate IT shops do, however, have some ability to negotiate additional provisions into their SLAs for cloud backup or cloud archive.
    b. I will not store my information that offers no SLA. Typical cloud storage SLAs cover what to expect for service levels and what users are entitled to for recourse. So within the details of the SLAs, it's pretty common to see guarantees that the service will be available 99.9% of the time. These SLAs also cover what's defined as service availability -- in other words, how long a read request can take to be serviced before it's considered outside of compliance with the SLA, how many retries are allowed and things like that. They also define what sort of recourse users have if they don't meet the 99.9% uptime guarantee

Case Study 2: Denver Health Operates with a private cloud and thin clients

1. ***Privacy laws and regulations require medical facilities to take measureable steps to ensure the confidentiality pf patient information. From this case study, can you tell what Denver Health has done to ensure the confidentiality of its patient information?***
    a. Denver Health turned into a ThinIdentity which utilized a thin client. Basically it's a high quality monitor, mouse, and keyboard in each patient room. All processing and information storage area maintained on Denver Health private cloud.
    b. Denver Health did create security measures to ensure that only the proper people can access the information. Doctors and nurses when they first arrive to work they sign on by inserting a smart card which contains that doctors or nurses credentials, once the smart card is inserted the end user still also has to supply their login and password. The help ensures that if a card is lost or stolen a random person or a different doctor or nurse is not able to use and look at other patient information.

2. ***Think about your school. How could it use the ThinIdentity solution to support the technology needs of (1) faculty and (2) students such as yourself?***
    a. Columbia College could put in place something similar to what Denver Health did. In this type of solution it could be a one stop shop for both students and faculty for anything that is Columbia College related. Both students and faculty could use it for quick access to student records. As a student I could then see if what classes are open, if any are available to audit, etc. all from the thin client. It would also allow for the faculty to have greater manageability.

3. ***In thinking about cloud computing (focusing on the public cloud), what role could it play in business continuity planning for Denver health? That is, how could the public cloud act as a backup for Denver Health's private cloud?***
    a. The public cloud could be an option for Denver Health's business continuity planning. The public cloud could be used as a tool or backup solution for Denver Health's private cloud. Denver Health could work with a company such as Amazon Web Service or AWS to create a backup cloud.

4. ***If Denver Health were to give each patient a smart card, log-on name and password, which functions, features, and information could benefits patients? What security would have to be in place to ensure that patients have access to only their own information?***
    a. All the information. Each and every information of the details asked or provided is important for patient treatment.
    b. The security which involved is:
        i. Availability—ensuring that accurate and up-to-date information is available when needed at appropriate places
        ii. Accountability—helping to ensure that health care providers are responsible for their access to and use of information, based on a legitimate need and right to know

iii. Perimeter identification—knowing and controlling the boundaries of trusted access to the information system, both physically and logically
iv. Controlling access—enabling access for health care providers only to information essential to the performance of their jobs and limiting the real or perceived temptation to access information beyond a legitimate need
v. Comprehensibility and control—ensuring that record owners, data stewards, and patients understand and have effective control over appropriate aspects of information privacy and access.

5. ***How could Denver Health extend the ThinIdentity solution beyond its brick-and-mortar walls? How would it work (i.e, need to change) to have doctors and nurses log on from home or use a mobile device such as a Blackberry or Iphone?***
    a. Concrete bricks have become a popular, economical substitute for traditional red clay brick. Building a concrete brick wall is similar in most ways to building a wall with clay bricks; the primary difference is that concrete bricks are cut with a masonry saw instead of split with a chisel. The process of building a wall with concrete bricks involves first pouring a level concrete footer, then laying your bricks in a staggered pattern, with layers of mortar in between to hold the bricks together.
    b. The iPhone is, in some ways, a dream solution for busy doctors, nurses, and other health care professionals. It is lightweight, easy to carry, and can be used for making notes, accessing records, searching medical references, viewing medical images, and illustrating all kinds of things to patients (injuries, progressions of illnesses, surgical procedures, and even physical therapy regimes). It offers access in the office, at a hospital, at home, or anyplace else. Perhaps more importantly, its user interface is intuitive and has very little learning curve

6. ***The reduction in physician log on time is an efficiency metric. What are some effectiveness metrics that could justify Denver Health's use of ThinIdentity?***
    a. Some process efficiency measures are:
        i. cycle time per unit, transaction, or labor cost;
        ii. queue time per unit, transaction, or process step
        iii. resources (dollars, labor) expended per unit of output
        iv. cost of poor quality per unit of output
        v. percent of time items were out of stock when needed
        vi. percent on-time delivery
        vii. inventory turns

    b. Some effectiveness measures are:
        i. how well the output of the process meets the requirements of the end user or customer
        ii. how well the output of the sub process meets the requirements of the next phase in the process (internal customers)
        iii. how well the inputs from the external suppliers meet the requirements of the process