Comparative Study of HRIS and Cloud HRIS

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ABSTRACT

Cloud computing is clearly one of today's most enticing technology areas due, at least in part, to its cost-efficiency and flexibility. However, despite the surge in activity and interest, there are significant, persistent concerns about cloud computing that are impeding momentum and will eventually compromise the vision of cloud computing as a new IT procurement model. In this paper, we characterize the problems and their impact on adoption. In particular, we argue that with continued research advances in trusted computing and computation-supporting encryption, life in the cloud can be advantageous from a business intelligence standpoint over the isolated alternative that is more common today.

Keywords: Cloud computing, security, privacy

I. INTRODUCTION

Cloud computing is a modern technology that increase application potentialities in terms of functioning, elastic resource management and collaborative execution approach. The central part of cloud computing is virtualization which enables industry or academic IT resources through on-demand allocation dynamically. The resources have different forms such as network, server, storage, application and client. In Cloud computing, resource are stored in centralized manner and accessed on demand basis. In recent days, mobile devices and subsequent mobile computing become an imperative component in cloud computing. Internet made the possibilities of accessing applications and data from anywhere at any time.

According to Juniper research, the mobile users and enterprise market for mobile cloud based applications worth are expected to increase to $9.5 billion by 2014. Aepona describes that MCC (Mobile Cloud Computing) as a new paradigm for mobile applications whereby the data processing and storage are moved from the mobile devices to powerful and centralized computing platforms located in clouds. These centralized applications are then accessed over the wireless connection based on a thin native client or web browser on the mobile devices.

In the virtualized systems, underlying pooled resources are shared among many users. Based on the demand and specifications of hardware and operating systems of the user, virtual machines are provided.

Advantages of Virtualization

- Availability: Availability of VMs is increased so that failure of any one of the VMs does not affect the availability of VMs to the user.
- Cost Reduction: There is drastic reduction in cost of investment on bigger servers. Small servers are equipped to increase the storage and processing capacity among them.
- Performance Enhancement: Failure of one Virtual Machine does not degrade the performance of other VMs.

ISSN (Print): 2204-0595
ISSN (Online): 2203-1731

 Load Balancing: Load balancing can be achieved by migrating a running VM from source to destination as per the availability of resources in the destination machine.
 Scalability: Whenever there is a need of more resources, resources can be obtained by shifting the required resources from available pool of resources.

II. COMPARISON OF HRIS AND CLOUD HRIS

Consideration	On-Premise HRIS	Cloud (SaaS) HRIS
Data Security/ Privacy	Implementing security/ privacy initiatives by IT department and possibly corporate security staff. May be very robust and more secure than transmitting via the Internet.	Providing assurance for security/privacy of data would be obtained from cloud provider. This agreement should be documented and tested for the highest level of employee data security (especially if you are allowing a lot of employee self-service interaction via the company intranet and/or mobile apps). Security/Privacy should be scrutinized by your organization's IT security department as well.
Cost/Budget	Negotiating software and licensing fees and keeping up-to-date the hardware (servers, etc.), physical space, air conditioning, maintenance and upkeep of the entire	Billing will most likely be on a monthly basis or possibly by user (total number).

ISSN (Print): 2204-0595
ISSN (Online): 2203-1731

	on-premise system.	
Functionality / Flexibility / Upgrades (Application Maintenance, Support, and Customization)	Depending on the vendor, some customization may be provided, but the IT department will probably perform much of this work.	Changing software configurations provided by cloud providers may be on a limited basis or additional charges may be incurred for it to conform to your needs.
Implementation	Implementing the HRIS may be controlled by your IT department. Authority for this would remain a part of your organization's IT strategy.	Implementing system parameters will be worked out with the cloud provider.
Hardware	Dictating the equipment needs (hardware, servers, etc.) may be handled by your organization, which may or may not align with HRIS current and/or future needs. However, it resides on company premises and the HRIS is owned by the organization.	Updating/Upgrading hardware will not be a concern because HRIS operates from the cloud vendor site (hardware, servers, etc.).
Mobile Access	Accessing data would probably be via company	Working with a cloud provider will be necessary,

ISSN (Print): 2204-0595
ISSN (Online): 2203-1731

	intranet browsers on approved mobile devices.	but probably more limited access to programs running on approved company devices (laptops, desktops, mobile apps, etc.).
Control	Controlling your HRIS will remain on-premise and your organization will have authority over the program.	Controlling your HRIS resides with the cloud provider, which includes entrusting it with employees' personal data.
Data Center Location	Planning the location of your data centers is in the control of your organization.	Choosing the location of the data centers may be out of your control because this depends on the cloud provider.
		Remember to consider security/privacy laws in place at the various geographic locations of the cloud provider's centers.
IT Staff	Depending on the IT staff configuration of your organization, it could be one or multiple locations. HR needs also would be placed in the hierarchy of corporate IT priorities and implementation schedule.	Servicing of your HRIS is part of cloud provider services, so direct discussions between HR and cloud provider may be more collaborative. Also, the system may implement faster because it's on HR's schedule, not a corporate IT department schedule.

III.

ISSN (Print): 2204-0595
ISSN (Online): 2203-1731

IV. CONCLUSION

Cloud computing is the most popular notion in IT today; even an academic report from UC Berkeley says “Cloud Computing is likely to have the same impact on software that foundries have had on the hardware industry.” They go on to recommend that “developers would be wise to design their next generation of systems to be deployed into Cloud Computing”. While many of the predictions may be cloud hype, we believe the new IT procurement model offered by cloud computing is here to stay. Whether adoption becomes as prevalent and deep as some forecast will depend largely on overcoming fears of the cloud.

Cloud fears largely stem from the perceived loss of control of sensitive data. Current control measures do not adequately address cloud computing’s third-party data storage and processing needs. In our vision, we propose to extend control measures from the enterprise into the cloud through the use of Trusted Computing and applied cryptographic technique

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ISSN (Print): 2204-0595
ISSN (Online): 2203-1731