Smart Mobile TV in the Technological Phones Integrating with cloud Based Service Social Media Service

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ABSTRACT

Technology and its way we implement has its own way to implement, if We Consider Today's world where the Smart market having the features smart mobile devices or tablets or recent terminology we can call it as Phablets, with smart features like which we want to put forward the Mobile TV, with a small difference of implementing the technology with the virtualization concept which we call it as cloud computing. In this paper, it describes about the way to filter data in the abundance of firewall and how to filter data, we represent the framework based innovative policy to adopt the management of configuring data and factors which bypass the mechanism. This framework based tool describes alternate to articulate the grid and cloud based computing based mechanism to handle the unwanted complex data. The most important issue to deal within the smart Mobile environment is to achieve a higher degree of integration and interaction between the devices. For this purpose our platform suggests connecting devices through TCP/IP protocols within the environment that enables better communication. This platform design considers security issues such as network security and user's personal contents security.

Keywords: Social V, Cloud Service, Phablets, Media Cloud

I. INTRODUCTION

In the Era of Smart Phone, where we implement the best to best innovative service in the trend of entertainment which PC or Laptop is providing. Keeping those points in the Modernization and innovation to smart phone we implement the best to best of the Introductory Part. Accidentally smart Mobile is an existing Mobile that is unable to accommodate and integrate the new technologies. It is a phenomenon in which technological components are embedded gradually in the environment rather than the new smart Mobiles that are purpose-built to support technologies. For example if a person brings Bluetooth-enabled speakers to Mobile and set those to the nearest sound source may get different programmers that are originally set by a neighbor.

There can social consequences that can arise with the technologies are implemented into the smart Mobile environment. The challenge of the designer is to deal with these social issues in efficient manner. The main social aspects to be considered are privacy, labor saving and good parenting. Cassavoy in his article defines a

smart phone as "a device that lets you make telephone calls, but also adds features that you might find on a personal digital assistant or a computer".
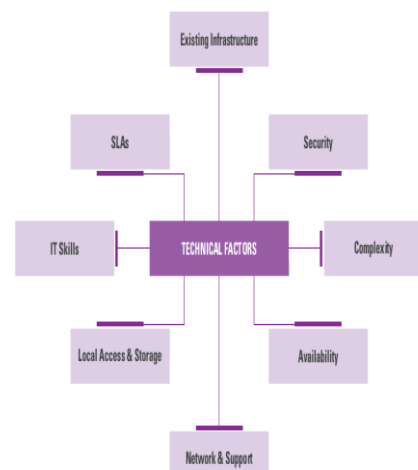

Figure 1.1. The Existing Network Infrastructure to overcome in Cloud Media

A smart phone can send and receive voice calls and text messages as traditional cellular phones, but in addition these phones include digital camera and large storage capacity, they are programmable and able to connect to the internet. Apart from this, there are many applications

available to be used on these smart phones. Pitt et al. discuss in their research five main characteristics that make a smart phone different from the traditional mobile phone.

II. RELATED WORK

The ability to interconnect different components that were acquired at different times and are from different vendors without any advance planning or prediction that only such components will be able to interoperate. The term of smart TV used in this thesis describes the integration of internet into a television set or a set-top-box, in order to gain interactivity and to add advanced features to the traditional television. According to the "interactive TV dictionary and business index" the definition of the smart TV is "A set-top box with advanced hardware and features. It might be capable of video on demand, e-commerce, internet browsing, e-mail, chat, etc". Recently a large number of global companies like LG, Samsung Sony, Panasonic, etc, are adding a layer of improved web features to the traditional television viewing experience using web connected applications that are specifically built for the TV in order to show the users favorite digital contents. For example Google together with Sony and Logitech, have announced new services for the smart TV that can also be controlled from a mobile phone running on the Android operating system. This kind of TV solution offers new functionalities that were not present in the old TV, like Mail, social networks, TV channels, and web search, etc.
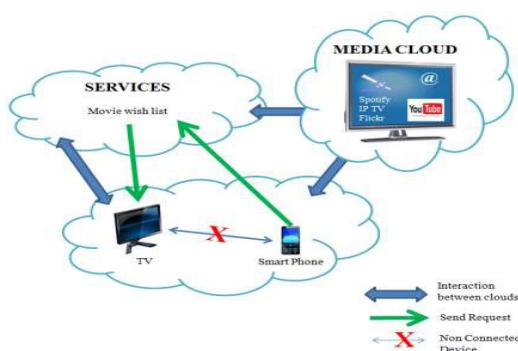
Figure 2.1. Interoperability Cloud Structure in the Hybrid network Cloud

Cloud computing architecture offers many benefits that distinguish it from the standard enterprise computing. Barge in his work classify the three main benefits of cloud computing:

2. 1. Reduce runtime and response time

Cloud computing allows applications to access large number of servers so it reduces the runtime as compared with the application running on a single server. A good example is New York Times that reduced runtime with the help of cloud computing.

2. 2 Minimize infrastructure risk

Cloud computing minimizes the infrastructure risks in the context malfunction in e.g. equipment, systems, software or services; since in cloud computing a company or a user can access the cloud servers so it is not necessary to purchase the physical servers. This implies that when the work load in the context of processing capacity increases, a large number of servers needed, can be deployed quickly. Even if users are using a private cloud where they have their own servers installed, when their work load increases then this load can be shifted to the public cloud.

2. 3. Low cost of entry
Cloud computing reduces the installation and entry cost in new markets; no need for advanced IT infrastructure. The main reason of the low cost is that the infrastructure installed in the cloud computing is rented, therefore no need to purchase servers, so the initial investment can be zero.

III. METHODOLOGY

In the Era Smart Phone technology, Reliability is a big challenge to be considered in the smart Mobile environment. In smart Mobile environment different devices are integrated such as TV, microwave, washing machines, cameras, and telephones etc that integrate with each other and with the environment. Developer must make sure that the devices never crash. In smart Mobile user communicate and interact with the environment in order to perform daily routine functions with the help of sensors and cameras. To some degree the environment is aware of the user and its surroundings. The challenge for the designer is to create a system that ensure the user understands the realistic presence of sensors, other devices, interpretation and machine actions in their Mobiles. The audio visual entertainment requires a smart TV in order to learn the

family preferences, access control, record the desired program on given schedule from different channels. This entertainment category is to provide the music according to the user preferences in any location, time and space in the Mobile.

There are four implementation models and three service models for cloud computing that can be implemented depending on the user requirements.

Figure 3.1. Illustration of the Social TV Connecting the HD of Cloud

Today we have TV, Digital Box, smart phones, security alarms, digital locks, computers, game consoles, and smart Mobile appliances in our Mobiles. Usually, these devices are not connected to each other since these are often from different vendors and run on separate platforms.

Cloud Services

Cloud computing provides services for all the needs ranging from hardware to end user applications. It allows for rental access to hardware resources such as servers, storages, routers, switches and also provides required application for end users on demand. It proposed three categories of services SaaS, IaaS, and PaaS. These categories are described as following.

Software as a Service (SaaS): is on demand service that provides a complete software application. The software is installed on a single computer in the organization and multiple users access it over the cloud within the organization.

Infrastructure as a service (IaaS): provides the all solution required to build an information technology (IT) infrastructure that usually consists of equipment, systems, software, and services. It provides storage and computing features as service on network. For hardware concerns it provides servers, switches, storage solutions, and routers, etc, and for computing purpose it provides all kind of applications from simple to high performance applications.

Platform as a service (PaaS): provides platform as a service to create high level services. The platform is equipped with all the resources required such as operating systems, application software, security, middleware, storage, programming language and development environment.
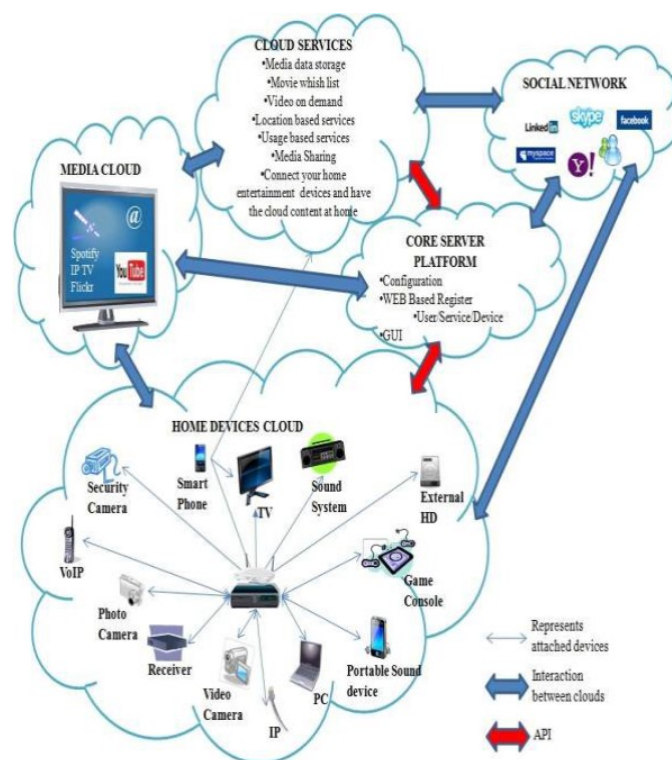
Figure 3.2. High Level Architectural Design Model of Plate form Based Access to the TV Network via Cloud

Tackling these issues with our proposed platform is done with more dynamicity:

- ✓ Devices are supposed to be content providers and will be able to serve as sensors too.
- ✓ Users will be able to interact with each other through their registered services and devices, e.g. like today's social media services.
- ✓ Services as well will be able to interact, loan and share directly data between them bringing entertainment experience to a higher level.

Exemplifying scenario: User A's registered smart TV will be able to communicate directly with User B's registered smart phone, of course if User A and user B allows that. Another example can be a smart TV in the kids' room, who's not supposed to be on at 22:00 can alert one of the parent's smart phone with a message leaving the possibility to switch off the TV or change the program to a more appropriate one

IV. CONCLUSION AND FUTURE WORK

In The Era Technological Innovations, The goal is to look at context-aware access control and how it is linked to semantically structured data in a business context, as supplied through the framework. The use of context-aware authorization mechanisms answers the need for a granular access system, where the traditional false/true authorization mechanisms are no longer sufficient. As an easy-to-catch scenario, we chose a travel scenario providing the user with context-aware and personalized information. The scenario takes place in an airport where the users has time to spare before their flight leaves and wants to get suggested places to eat and known people to interact with. This is done by having the user's mobile device connect automatically to a hotspot and sends the context information to a service that will request relevant information from the user profile stored in the cloud service. We focused on the authorization part of the scenario, to implement a context-aware authorization model in enterprise systems, using as much as possible enterprise oriented solutions.

V. REFERENCES

[1]. Dr. Anwar M. Mousa, Prospective of Fifth Generation Mobile Communications‖ International Journal of Next-Generation Networks (IJNGN) Vol.4, No.3, September 2012

[2]. Ahmed and Moore. Sparql / odata interop. Technical report, W3C, 2013.

[3]. Z. Huang, C. Mei, L. E. Li, and T. Woo, "Cloudstream: Delivering high-quality streaming videos through a cloud-based svc proxy," in INFOCOM'11, 2011, pp. 201-205.

[4]. T. Coppens, L. Trappeniners, and M. Godon, "AmigoTV: towards a social TV experience," in Proc. of EuroITV, 2004.

[5]. N. Ducheneaut, R. J. Moore, L. Oehlberg, J. D. Thornton, and E. Nickell, "Social TV: Designing for Distributed, Sociable Television Viewing," International Journal of Human-Computer Interaction, vol. 24, no. 2, pp. 136-154, 2008.

[6]. A. Carroll and G. Heiser, "An analysis of power consumption in as smartphone," in Proc. of USENIXATC, 2010.

[7]. What is 100% Pure Java, http://www.javacoffeebreak.com/faq/faq0006.html.

[8]. J. Santos, D. Gomes, S. Sargento, R. L. Aguiar, N. Baker, M. Zafar, and A. Ikram, "Multicast/broadcast network convergence in next generation mobile networks," Comput. Netw., vol. 52, pp. 228-247, January 2008.

[9]. DVB-H, http://www.dvb-h.org/.[10] K. Chorianopoulos and G. Lekakos, "Introduction to social tv: Enhancing the shared experience with interactive tv," International Journal of Human-Computer Interaction, vol. 24, no. 2, pp. 113-120, 2008.

[10]. M. Chuah, "Reality instant messaging: injecting a dose of reality into online chat," in CHI '03 extended abstracts on Human factors in computing systems, ser. CHI EA '03, 2003, pp. 926-927.

[11]. R. Schatz, S. Wagner, S. Egger, and N. Jordan, "Mobile TV becomes Social - Integrating Content with Communications," in Proc. of ITI, 2007.

[12]. R. Schatz and S. Egger, "Social Interaction Features for Mobile TV Services," in Proc. of 2008 IEEE International Symposium on Broadband Multimedia Systems and Broadcasting, 2008.

[13]. J. Flinn and M. Satyanarayanan, "Energy-aware adaptation for mobile applications," in Proceedings of the seventeenth ACM symposium on Operating systems principles, ser. SOSP '99, 1999, pp. 48-63.

[14]. W. Yuan and K. Nahrstedt, "Energy-efficient soft real-time cpu scheduling for mobile multimedia systems," in Proceedings of the nineteenth ACM symposium on Operating systems principles, ser. SOSP '03, 2003, pp. 149-163.

[15]. G. Anastasi, M. Conti, E. Gregori, and A. Passarella, "Saving energy in wi-fi hotspots through 802.11 psm: an analytical model," in Proceedings of the Workshop on Linguistic Theory and Grammar Implementation, ESSLLI-2000, 2004, pp. 24-26.

[16]. X. Zhang, A. Kunjithapatham, S. Jeong, and S. Gibbs, "Towards an Elastic Application Model for Augmenting the Computing Capabilities of Mobile Devices with Cloud Computing," Mobile Networks and Applications, pp. 1-15, Apr. 2011.

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