Distributed Media Sharing

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Abstract: *File sharing is a corner stone application of network computing. The most popular way to achieve an efficient file sharing through the Internet is to use Peer-to-Peer (P2P) protocols via applications such as BitTorrent. However, BitTorrent is an open file sharing service that allows files to be shared widely without the consent or control, of the original publisher of the work. Such a fact is undesirable for a lot of organizations and institutions since it raises copyright and content ownership issues. In this paper we propose an efficient BitTorrent-like protocol that aims at privatizing the P2P network such that control over the distribution of copyrighted material can be achieved. This is done by limiting the user set to those authorized based on their machines MAC addresses.*

Keywords- *Secure file sharing, P2P, BitTorrent.*

I.   Introduction

This application proposes a new mobile distributed file system: MobiDFS in order to place some implications on solving this problem. The generic idea of MobiDFS is to reduce computing in mobile device by transferring computing requirement to server. By using server-client mode, this goal can be reached. Mobile device, such as Android equipped smart phone, tablets, and pads, have multiple communication interfaces which contain Wi-Fi. This file system will choose the optimal way to transfer files when requested in order to reduce energy consuming. The implementation of this system allows users connect to the whole distributed file system directories without considering the factor of mobile device hardware platform. In addition, User privileges, which separate different users in the file system, are taken into consideration.

II.   Literature Review

1.   Lightweight Display Virtualization For Mobile Devices

The author Mihai Carabas, , Lucian Mogos, Anu, Razvan Deaconescu, Laura Gheorghe, Nicolae T,Apus has presented an approach for providing lightweight and fast display virtualization[1] for mobile devices this allows multiple operating systems to share the same physical display screen. They have created the prototype implementation using a dual guest android setup which uses the Para virtualization framework, this paper have advantages such as new approach to display virtualization, the ability of multiple mobile operating systems (such as Android), running on the same device, to share the display screen. It has a small codebase that may be easily ported to different mobile platforms. But it fails to explain about the lack of GPU virtualization lack of a distinct driver domain.

2.   Screen Sharing Application for Mobile Phones

In this, authors have discussed about how the mobile phones have undergone the various changes. Android phone has the touchscreen capability which can be used to display and manipulate the information. Authors have discussed about sharing the mobile screen[2] of one user with another user i.e. Screen Sharing through their phones. This topic have disadvantage like application creates a connection between two users through which they can share their mobile phone screens. The sharing of information is done at an optimal rate which ensures that the system does not get overloaded while maintaining the quality of communication. But it does not cover security mechanism . Also, higher android version are expected.

3.   A Screen Sharing System for Wi-Fi Network

The author Khong Neng Choong et.al have discussed about the Seamless Presentation Technique (SP)[3] which is server-less sharing system that will work on Wi-Fi environment. Although this system will work on android only as the future work can be to implement it on various O.S. Platforms. The advantages of

this paper are as follows. SP was designed and implemented purely as software solution to support multi-delivery models. SP uses application agnostic approach to capture, encode and transmit desktop screen across the wireless network to the corresponding SP receiving application. But this paper could not cover topics like SP runs only on Windows platform while Display Cast runs on both Mac and Windows. Not investigated on stream based on both computing and communication resources in the context, thereby delivering a smarter mirroring system.

4. Peer-assisted video on-demand streaming system in practical Wi-Fi based mobile opportunistic networks

On demand video streaming services are available in market now days. The authors have extended their previous work on MOVi(Mobile Opportunistic Video-on-demand) and they have proposed an improve scheduling algorithm which incorporates H-hop blocking and opportunistic download skipping schemes. Wi-Fi direct technology which allows direct device to device communication[4].

5. Designing energy efficient access points with Wi-Fi Direct

Daniel Camps-mur et .al have discussed the overview of the technical features of Wi-Fi direct technology. They have analysed various features of the Wi-Fi direct through there experimentation that quantifies group formation delays in real life scenarios. They have well explained about Wi-Fi Direct devices are required to implement Wi-Fi Protected Setup (WPS) to support a secure connection with minimal user intervention. In particular, WPS allows establishing a secure connection by, e.g., introducing a PIN in the P2P Client, or pushing a button in the two P2P Devices. In order to support energy savings for the AP, Wi-Fi Direct[5] defines two new power saving mechanisms: the Opportunistic Power Save protocol and the Notice of Absence (NoA) protocol. But this paper carry disadvantages such as In order to foster vendor differentiation, the Wi-Fi Direct specification does not define any mechanism to compute the CT Window in the Opportunistic Power Save protocol or the schedule of absence periods in the Notice of Absence protocol.

III.   Conclusion

In this application we have discussed about the mobile computing and android as a platform for mobile computing. Also we have stated points about our proposed system and its advantages and we have discussed the architecture of the system and how it helps the users to get connected with WiFi network to sharing the contents of our mobile phones.

References

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