REMOTE DISPLAY SYSTEM FOR REAL TIME STREAMING OVER GPRS IN MOBILE CLOUD COMPUTING

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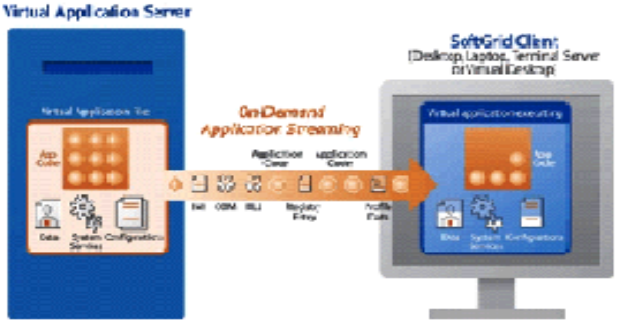
Abstract

Now a day we required high quality information, efficient access, large memory capacity, appropriate monitoring system, handling the distributed application over different sites and data can streamed in real time application effectively. Mobile devices have great demand. Mobile cloud computing provides a solution to meet the increasing functionality The mobile device acts as a remote display, capturing user input and rendering the display updates received from the distant server. In this paper, we discuss a number of adequate solutions to extract the data in real time application .a market stream is a wireless market data solution where data is streamed via GPRS in mobile live net technology is a health monitoring system with real time data streaming and facilitate development of distributed real time.

Key Terms: real time data stream, market data stream, live net technology.

Introduction

Remotely, displaying and streaming the real time data is one of the great challenges. We use the mobile device through cloud computing concept. Growing the mobile device to run heavier application it stores huge amount of information with large color display. Their portability is well. a mobile cloud computing solve the problem of processing power, storage capacity, battery lifetime ,display size and hardware platform problems.



There is some method for streaming the data remotely in real time system.

1. Market data stream
2. Live net technology

Market data stream

Now, global financial market changes rapidly .we need market update information. So we required to extract or stream the market information. A browser based technology can be used to achieve it. But it is very costly and inefficient.

Market stream overcome this problem market Stream is a wireless market data solution, utilizing state-of-the-art mobile technology to deliver comprehensive real-time financial information to hand-held mobile devices. Subscribers have access to the global market data at their fingertips wherever they are, whatever they are doing. Through streaming data via GPRS (General Packet Radio Service), market Stream delivers time critical financial information to the user at high speed and can allow users international connectivity via roaming on foreign networks. The user also has a high degree of flexibility in how to display the information, and with respect to the level of detail in which information is supplied. Market stream provides some advantage.

- Access to real time market data covering foreign exchange, commodities and equities
- Intraday charting.
- Enable the user to set limit alerts on instrument
- Provide the news about European America equity

Live net technology

It is flexible distributed mobile platform is used for health care monitoring applications and capable of local sensing and real time processing data is streamed distributed and getting real time feedback.

Related Work

The related work of [1] how data is streamed between market stream client and market stream server. How connection is setup .a bandwidth problem is solved by versatile graphics encoding scheme. Compress the he large amount of market data. The delay to display data in mobile should be minimum..User communication done in properly manner. Without any interruption. There is large volume of financial

data so it should stream in real time. User will get large color display, subscriber enjoy great ease in using their mobile device.

The related work of [2] This paper presents Live Net, **a** flexible distributed mobile platform that can be deployed for a variety of proactive healthcare applications that can sense one's immediate context and provide feedback. Based on cost-effective commodity PDA hardware with customized sensors and data acquisition hub plus a lightweight software infrastructure, Live Net is capable of local sensing, real-time processing, and distributed data streaming. The Live Net system allows people to receive real-time feedback from their continuously monitored and analyzed health state. Combining general-purpose commodity hardware with specialized health/context sensing within a networked environment, it is possible to build a multi-functional mobile healthcare. The Live Net system focuses on using combinations of non-invasive sensing and contextual features (for example, heart rate, motion, voice features, skin conductance, temperature/heat flux, location) that can be correlated with more involved clinical physiology sensing such as pulse oximetry, blood pressure, and multi-lead ECG. Sensors in the Live Net system can continuously monitor autonomic physiology, motor activity, sleep patterns, and other indicators of health. The data from these sensors can then be used to build a personalized profile of performance and long-term health over time tailored to the needs of the patient and their healthcare providers present a new approach for modeling multi-modal data sets.

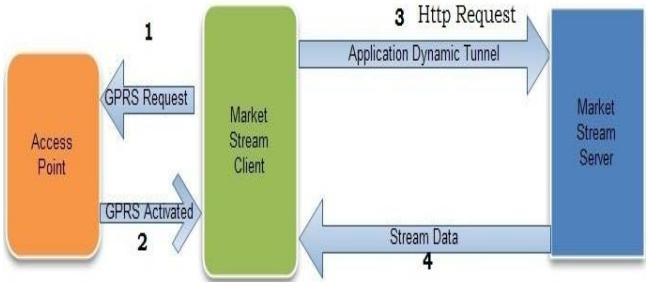
The related work of [3] presents the mechanism for the limited and varying bandwidth on wireless links and the interaction latency between some user input and the update of the display. In the remainder of this article, we present and discuss a number of solutions that have recently been proposed to adequately address these challenges. An overview of the covered solutions is presented in Table 1.

Table 1
Overview of recent solutions to the challenges of Mobile Cloud computing surveyed in this article.

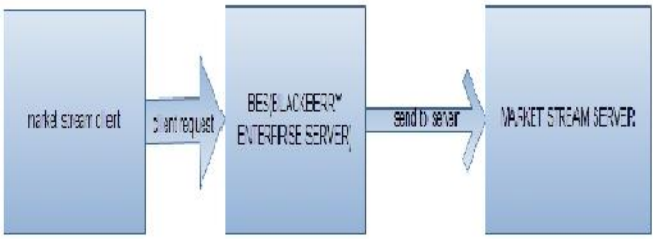
Challenge	Solution
battery lifetime (section II)	cross-layer indentification of WNIC sleep opportunities [4]
wireless bandwidth availability (section III)	motion-based differentiated encoding [5] individual object encoding [6] real-time adaptation of encoding parameters[7]
interaction latency (section IV)	scene object caching [6] buffering of key images for virtual environments [8] computing display updates in advance [10]

Proposed Work

In this proposed paper we showed how to stream the data from market stream server the market stream client ask the request gprs connectivity to access point. After activation of gprs, it has set for web access and then send the http request to the marketstream server via application dynamic tunnels. Server receive this request from client side and checks the user session id , language, version. On receipt of these parameters the server is then able to "stream" in real time the required instrument information for display on the mobile

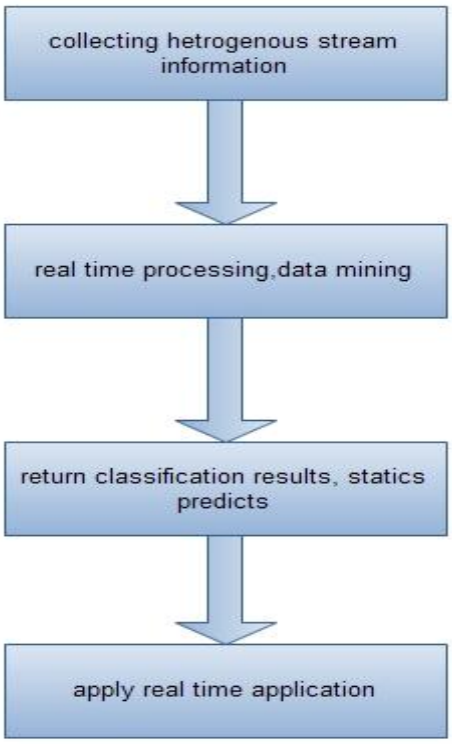


Market stream only updates those char within user list of instrument that have updated, rather than refresh the viewed page as a whole. a black berry enterprise server(BES) is added. Authentication access is permitted ON BES and gets serviced the market stream server itself never initiated.BES is one kind of inter face security between market stream client and market stream server request (BES)Security is added blackberry .



Live net technology

There are three major components to the Live Net system: a personal data assistant (PDA) based mobile wearable platform, the software network and resource discovery application program interface (API), and a real-time machine learning inference infrastructure. The Live Net system demonstrates the ability to use standardized PDA hardware tied together with a flexible software architecture and modularized sensing infrastructure to create a system platform where sophisticated distributed healthcare applications can be developed

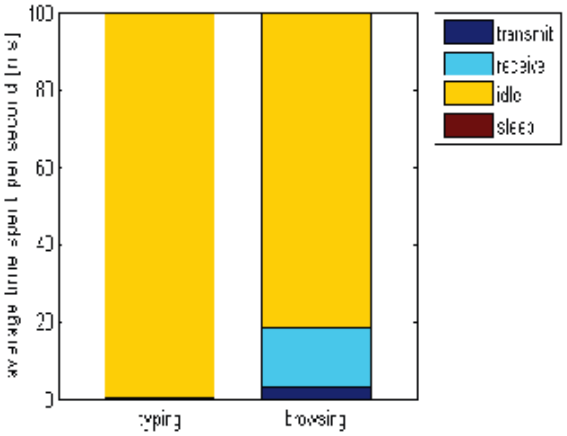


The Live Net hardware and software infrastructure provides a flexible and easy way to gather heterogeneous streams of information, perform real-time processing and data mining on this information, and return classification results and statistics. This information can result in more effective, context-aware and interactive applications within healthcare settings.

In displaying the real time application on client mobile various problems we have to face as battery lifetime, bandwidth limited problems and interaction latency. We describe some approach to overcome these problem.

Approach to solve limited mobile device battery lifetimes

Wireless interface card(WNIC) is used to save the battery lifetime and energy The WNIC energy consumption is the product of the number of bytes exchanged over the wireless interface, and the energy cost per byte. Efficient compression techniques to reduce the amount of exchanged data. The average energy cost per byte is determined by the distribution of the time over the four possible WNICstates: send, receive, idle and sleep mode. Because in each state a specific set of components is activated, the WNICpower consumption largely differs between the different states Figure 3 visualizes our measurements on the average WNICtime distribution in remote display scenario.



Advanced compression technique used to limits the bandwidth

The choice of codec to compress the intercepted application graphics at the server is a tradeoff between visual quality, compression efficiency and decoding complexity..remote display architecture virtualizes the graphical library at the server and forward intercepted drawing primitives to the client, such as instructions to draw a rectangle, to display a bitmap or output on some text on the screen. for downstream data peak reduction, we propose hybrid cache-compression scheme whereby the cached data is used as history to better compress recurrent screen updates. The cache contains various drawing orders and bitmaps. Optimizing the upstream packetization overhead simoens developed models of the interaction latency in terms of this buffering period and the network roundtrip time. These models are integrated in a closed-loop controller running at the client, which ensures that the average interaction latency does not exceed a predefined maximum value by continuously monitoring the current network status and adjusting the buffering period accordingly. The highest bandwidth reductions are achieved for interactive applications with frequent user events and lower roundtrip time.

Ensuring good interaction response

We have to find the solution to mitigate the interaction latency either target reduction of the number of hops on the end-to-end path by moving the application closer to the client or better Synchronization mechanisms between client and server. Satyanarayanl introduce the concept of *cloudlets*: trusted, resource-rich computers that are dispersed over the Internet.

Exploiting virtual machine technology, mobile devices rapidly deploy their services on the most nearby cloudlet by uploading an overlay virtual machine to customize one of the generics virtual machines that are commonly available

on all cloudlets. The physical proximity ensures low-latency, one hoping-bandwidth wireless LAN access, e.g. over the latest Wi-Fi 802.11n technology, instead of mobile radio technology access, such as HSDPA or LTE.

Conclusion

By physically separating the user interface from the application logic, the principle of mobile cloud computing allows to access even the most demanding applications in the cloud from intrinsically resource-constrained mobile devices. In this article, we have surveyed contemporary remote display optimization techniques specifically tailored to the short mobile device battery lifetime, the varying and limited bandwidth availability on wireless links and the interaction latency. Although each of these solutions adequately address specific.

Challenges of mobile cloud computing, an overall approach is Currently lacking. The context of mobile cloud computing is highly dynamic, owing to the user mobility, the wide diversity of applications, and the varying wireless channel status. Future Research should therefore be devoted to the design of an overall framework, integrating all the presented solutions, and activating the most appropriate solutions dependent on the current device, network and cloud server status.

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