Real-time Financial Mobile Application

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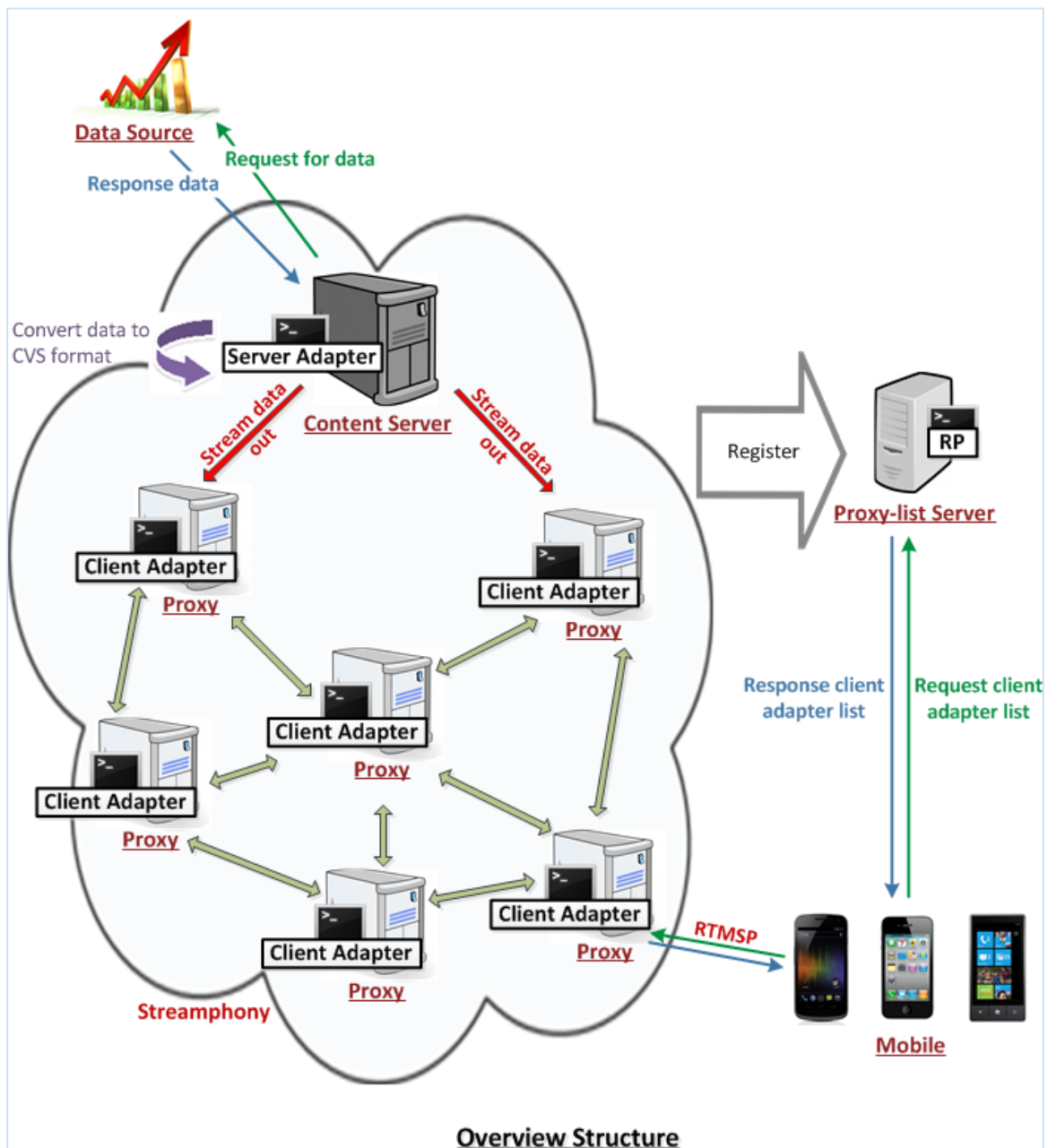
Introduction

Using Android/iOS devices to check stock quote is very popular nowadays. However, real-time streaming stock quote application is not common due to the difficulties in providing stable and real-time service. Our project is focused on developing a streaming stock price application that can monitor stock price in real time on Android and iOS device by data streaming technology.

Objective

i.   To make use of the network resources with high utilization

ii.   To make the system scalable by using Streamphony, an advanced peer-to-peer system

iii.   To provide a better user experience without making unnecessary network traffic and transmission delay by using streaming rather than HTTP request
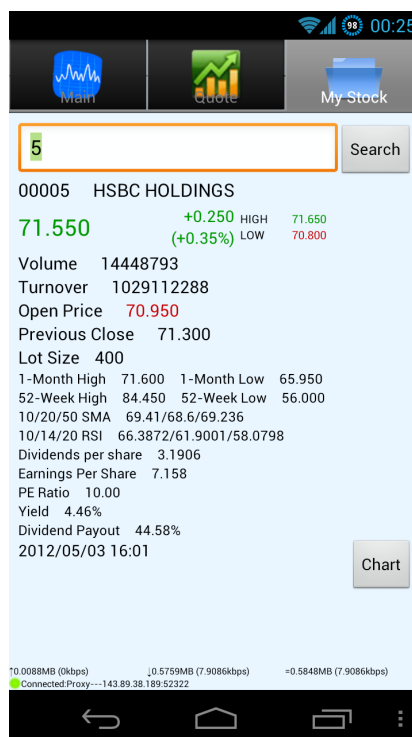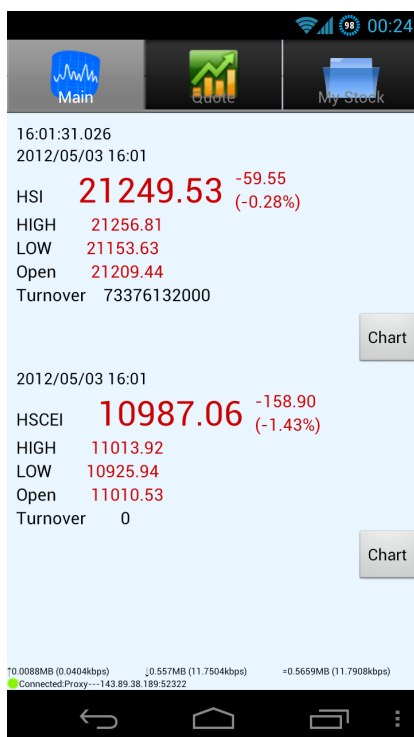
Design

Overview Structure

Products and features

Our applications are available on both Android and iOS platform. The applications are using streaming method to receive the data from our server. The data can be instantly updated and shown in our applications.

They have three main layouts.

i.   Quote of HSI and HSCEI with their details

ii.   A single stock quote with its details

iii.   A list of all available stock quotes

History charts are also available in our applications for different stock quotes.
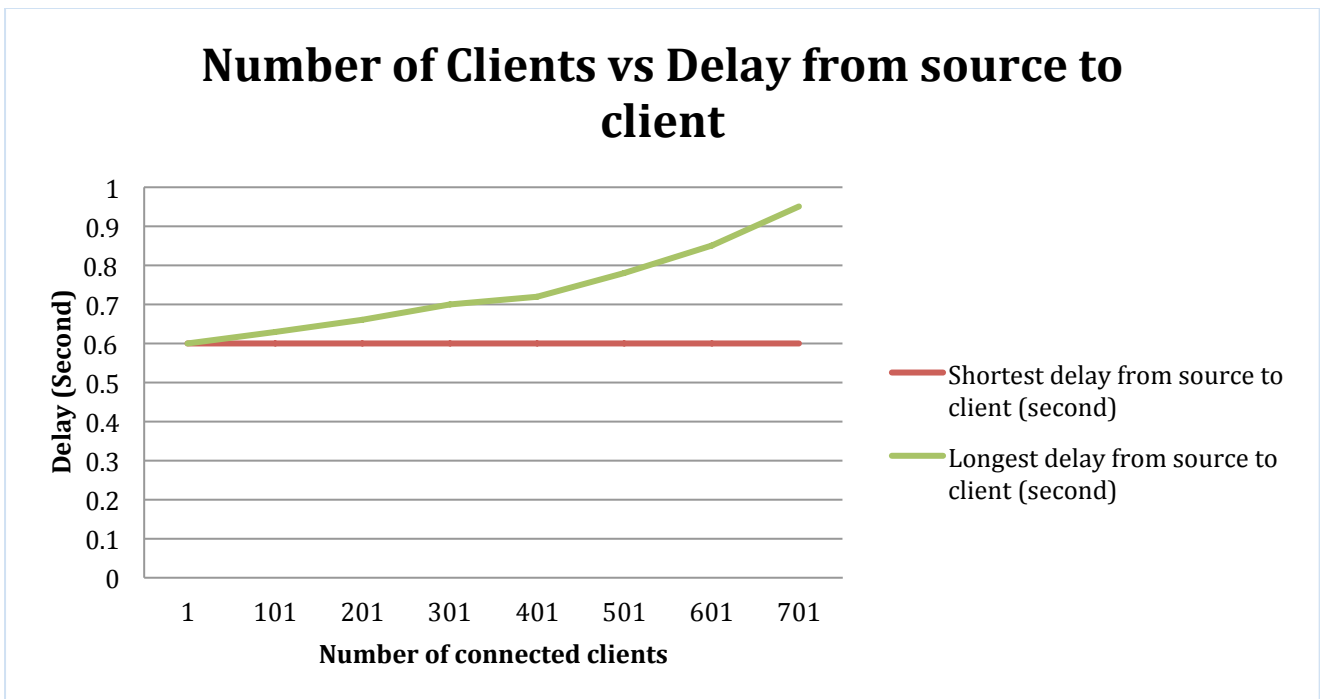

Android version

iOS version

Stock quote history chart

Evaluation

* Our application is faster than the real-time financial website.

* The delay of the slowest client and the fastest client is within 1 sec.

Future Features

- Support stock price alert using background service
- Client application on other mobile platform (e.g. Windows Phone)