BACKGROUND

With the invention of electronic trading, there has been an exceptional growth in financial data volume. Financial data from exchanges, are distributed to different types of consumers. Two main classes of consumers are Enterprise and Desktop.

The Enterprise class of users, typically have very high bandwidth infrastructure, and can consume an extremely large number of streaming asset ticks. Typical usage can be attributed to algorithmic trading, corporate trading desks, etc.

The Desktop class of users, are usually retail traders that run their applications on their personal computer, and do not have the infrastructure to support large usage of streaming tick data.

For both classes of users, their financial applications will interface with the data providers thru Application Programming Interface (API). The general methods supported by data providers, are namely OnUpdate and Snapshot.

The OnUpdate method is a realtime event driven notification to the user's application, when there is any change in data fields being monitored. Eg. Ask or Bid prices changing. This method requires more heavy resource consumption on the user's infrastructure (network, server), because the data provider server will need to subscribe and poll continuously for data changes.

The Snapshot method is at-the-moment data capture and becomes stale very quickly. This method is most lightweight, since there is no continual usage of resources. Unfortunately, the downside is users cannot follow the market development.

From the data provider perspective, users using OnUpdate data retrieval methods will be charged a higher price, compared to users using the Snapshot method.

DESCRIPTION OF INVENTION

In view of the above discussion, this invention seeks to create a new method of financial data retrieval that is less costly, more efficient with acceptable risk management.

The new method Risk Managed RotatingSnap combines the best of OnUpdate and Snapshot methods, and provides an approach to address the data staleness problem. This method builds upon the Snapshot method, and gets data updates with a well-timed rerun of Snapshot. It helps to alleviate stress on corporate infrastructure, when there are high trading volumes. In between each snapshot, there is always a risk that the user will miss out on data field updates, like Asset price changes.

To manage the risk of missing out on data field updates, this invention combines a popular concept, Value at Risk (VaR). VaR is a probabilistic measure of potential losses and can help provide an answer to "What is the most I can – with a 95% or 99% level of confidence – expect to lose in dollars in between each snapshot".

The Risk Managed RotatingSnap method is very powerful, when users need to capture much more tickers than he/she is permissioned to do so. Most corporations set a limit on total number of concurrent tickers. For example, a company cannot exceed more than 10,000 unique asset tickers at any point; otherwise, the data provider will charge a penalty for exceeding. By rotating between batches of tickers, this method can set a limit to number of ticker request at any point.

A data retrieval engine having this Risk Managed RotatingSnap feature according to this invention can achieve lower data traffic; hence cost savings for the corporate infrastructure. The VaR can be calibrated to individual user's risk appetite.

DESCRIPTION OF DRAWINGS

Fig 1 – Diagram of application using present OnUpdate/Snapshot method (See below)

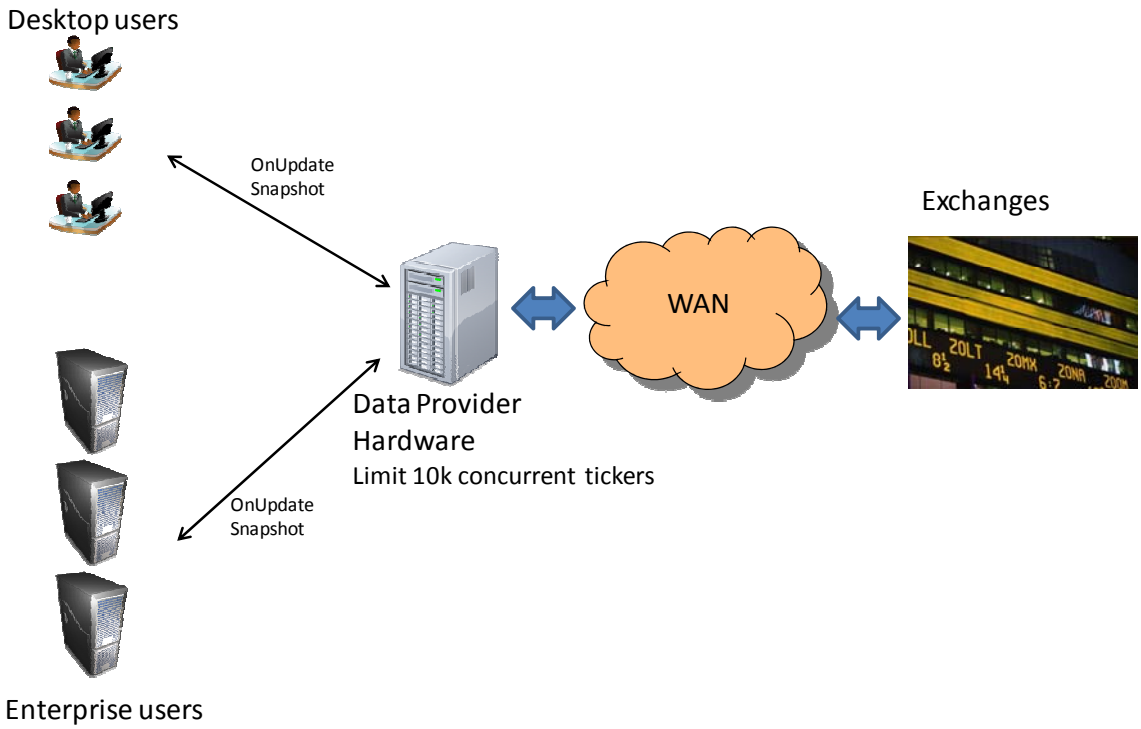
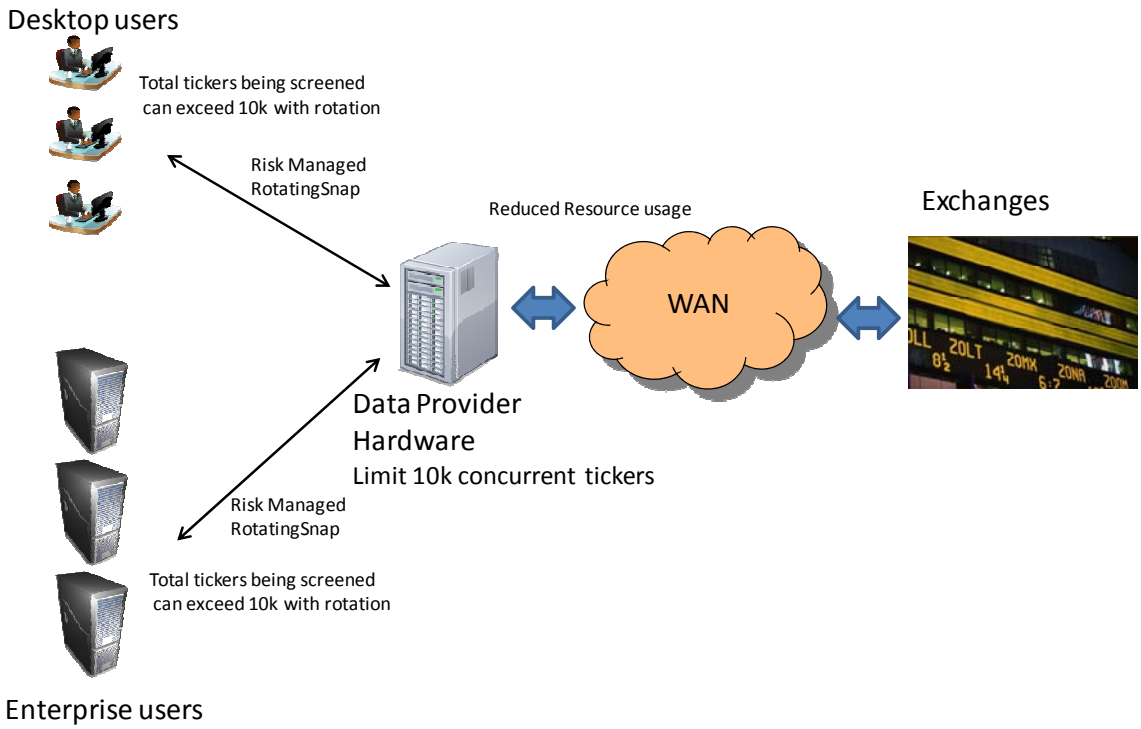


Fig 2 – Diagram of application using Risk Managed RotatingSnap method. (See below)



CLAIMS

1. A financial data retrieval method that rotates through batches of assets, so that it limit the total number of concurrent data requests.
2. A financial data retrieval method that incorporate risk management techniques to overcome the stale data factor.
3. Any applications that according to claim 1, wherein said overcome the concurrent data request limits.