

The device and
bandwidth of network.
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The objective of mobile data mining is to provide efficient techniques for the analysis and monitoring of critical data from mobile devices. The client programs are present on mobile devices that can invoke the data mining tasks of remote execution and show the mining results is an additional value for organizations and users who need to perform data analysis stored where users are working, which is very far away from the site that allows them to produce study regardless of their present location. The mobile data mining provides efficient techniques for the monitoring of critical data from mobile devices. Distributed data mining environment is a critical issue which mobile data mining has to face, also some technological constraints such as low-bandwidth of networks, much slower processors, lesser storage space, small screens to visualize the results as well as limited battery power.

MobiMine is an example of mobile data mining environment that is created for intelligent supervising from mobile devices of stock market. It is based on a client-server architecture. The clients, which are running such as PDAs, monitor a stream of all the data which are coming through a server. The stock market data is collected from number of Web sources in a database and evaluate it on a regular basis using several mining techniques. The database is queried by clients for the latest information as for quotes and other essential information. For communication which includes clients and the database a proxy is used.

When a user have some query regarding the database, to the proxy the query is send that connects to the database, take out the results and pass them to the client. MobiMine uses a Fourier-dependent approach for the representation of the decision trees, for efficient communication of data

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mining models over wireless links that has limited bandwidth, it saves memory on mobile device and bandwidth of network. These are the major components of any data mining system: data sources, data warehouse server, engine for data mining, graphical user interface (GUI), pattern evaluation module and knowledge base. System architecture of mobile data mining is based on three types of basic components: 1) Data Sources Data warehouse, World Wide Web, Database, some text files and other documents which are the actual sources of data present. We require large volumes of historic data to be successful for data mining.

Organizations mostly store data in data warehouses. It may contain one or more databases, files, spreadsheets or other kinds of information database. Mostly, data may present even in plain text files and spreadsheets. The another big source of data is World Wide Web or the Internet. Different Processes The data should be cleaned, integrated and picked up before passing it to the data warehouse server. The data is from number of sources and in different formats, so it cannot be used directly the data may not be complete and reliable for the data mining process. So, first data needs to be cleaned and integrated for data mining process.

Similarly, more than required data will be taken from various data sources and only the interested data needs to be selected and passed to the server. These processes are not as much simple. As part of cleaning, integration and selection as a number of techniques may be performed on the data. 2) Mobile clients The mobile client is composed of three components: the MIDlet, the

DMS, and the Record Management System (RMS) Ø The MIDlet is a J2ME(java 2 micro edition)application.

Ø MIDlet uses mobile information deviceprofile(MIDP). Ø The DMS(data mining service) is a Web Service stubthat allows the MIDlet to invoke the operations of a remotedata mining server. Working1. TheMIDlet invokes the submitTask operation of the remote DMS. Whenever the taskhas been submitted, the DMS returns a unique id for that task. 2.

TheMIDlet monitors its status by querying the DMS. It periodically invokes thegetStatus operation, that receives the id of the task and returns its currentstatus. 3. Wheneverthe getStatus operation return done, the MIDlet invokes the getResult operationto receive the result of the data mining analysis. 3) Mining Server Server nodes are essential forstoring the data generated by some data providers and for executing the miningtasks submitted by mobile clients. Each mining server uncovers itsfunctionalities by the help of two web services: Data Collection Service (DCS)The DCS is invoked by data providers to store data on the server. For uploading new data. For deleting an existing data.

For updating data set. DataMining Service (DMS)Invoked by mobile clients to perform data mining tasks. Obtaining the list of the available data sets and algorithms.

Submitting a data mining task. Getting the current status of a computation, along with the result of a given task. The DCS is invoked by data providers to store data on the server.

Data uploaded through the DCS is stored as plain data sets in the local file system. The DMS invokes the mobileclients to perform data mining tasks. Its interface defines a set of operations(DMS ops). The data analysis is performed by the DMS using a subset of allthe algorithms.