Generalization of Consistency and Seraching Mechanisms Over Scalable Transactions

Hanydas S H	M. Tech Student, Dept. of CSE, Marian Engineering College, Trivandrum, Kerala, India,
Shiji C G	Asst Professor, Dept. of CSE, Marian Engineering College, Trivandrum, Kerala, India,

ABSTRACT

Data management applications are potential credentials for deployment in scalable transactions. There are many consistency problems that can be occurred during data management process. The data management between top level and bottom level stake holders has shown inconsistency in policies. This is the major reason for disagreement in policy conflict. It has been proposed several increasingly stringent levels of policy consistency constraints approaches have to guarantee the worthiness of applications in an organization. Query searching using keyword is widely used to search related and valid documents on the transactional database. This work focusing on the keyword searching, retrieval and query processing has been performed in the transactional database. The main concept of keyword query searching comes which reduces high cost of processing data. This method also reduces the processing time as well as the space required.

KEYWORDS   Transactional database, Policy consistency, Query keyword search, policy constraints

INTRODUCTION

Keyword queries are the alternative scheme to structured query languages. Keyword search is the most popular file extraction method. The user does not need to know either a query language structure of the data. The available search engines provide search results on top of sets of document files [1]. The indexes are used to identify the database objects corresponding to the keywords at the run time. A schematic system that answers keyword queries over relational data systems [3] [4].

Considering the larger number of data users and document in the transactional database, it is necessary for the search services to meet effective data retrieval. The files are retrieved using a queried keyword instead of using a regular search. The queried keyword can be of two types. They are single keyword and multi keyword. In single keyword, the keyword consists of a single word. That means there is no white spaces are allowed in between the character [6]. In multi keyword, more than one word is used to search for a file. A multi keyword search scheme provides secure inner product computation and then improves to meet different privacy requirements.

Scalable transactions provide scalability and high availability properties for applications, but at the same time they sacrifice consistency. To provide scalability and elasticity services offer may heavy use of replication to achieve consistent performance and availability [5].

In systems, authorization policies that describe the conditions under which user should be permitted access to resources. Transactional database system use policy based authorization systems to protect sensitive resources. Transactional database systems also provide two types of security inconsistency conditions such as policy inconsistencies during policy updates and user credential inconsistencies that can emerge as transactional database system can be avoided through the concept of a trusted transaction [6]. A trusted transaction does not violate credential policy inconsistencies over the life time of the transaction.

LITERATURE SURVEY

A mechanism that enables untrusted service providers to support transaction serialization, backup, and recovery with full data confidentiality and correctness. Distributed authorization highlights the inconsistency issues that can arise in the case where authorization policies are static, but the credentials used to satisfy these policies may be revoked or altered. A protocol that enables various consistency guarantees to be enforced during the proof construction process to minimize these types of security issues. These consistency guarantees are similar to our notions of safe transactions.

A relaxed consistency model proposes a technique to the complexity of the design of large scale application and finds a set of consistency problems. It allows queries to express consistency and concurrency constraints [7]. It also introduces a dynamic consistency mechanism which automatically provides the level of consistency at run time. Security is considered one of the major obstacles to a wider adoption of scalable transactions. Particular attention has been given to user security as it relates to the proper handling of outsourced data. To protect user access patterns from a transactional database, [6] introduces a mechanism by which transaction users can issue encrypted reads, writes and inserts.

In schema based keyword search keyword query is processed by mapping keywords to elements of the database. With the help of using the schema, verified valid join sequences are derived. These joins are then computed keyword to form so called candidate networks. It is representing possible results to the keyword query. It provides facility of information discovery on the transactional database [2]. It allows user to submit keyword queries without any knowledge of the database schema or of SQL. This approach can handle queries with both AND and OR semantics. It exploits the refined single-column text-search functionality often available in transactional database.

SYSTEM DESIGN

A number of search engines permit repetitive results of keywords. The time required for retrieval is more or the contained results are from single source. It forms the keyword search is less efficient and less effective. The repetitive and complicated keyword search system infringements calls for the development of fast, valid and relevant keyword search system.

A scalable transaction consists of a set of servers where each server is responsible for hosting all data items belonging to a specific application domain. Users interact with the system by

submitting queries. A transaction manager coordinates its execution. When the system workload increases, multiple TMs could be invoked for balancing load, but each transaction is handled by only one TM.
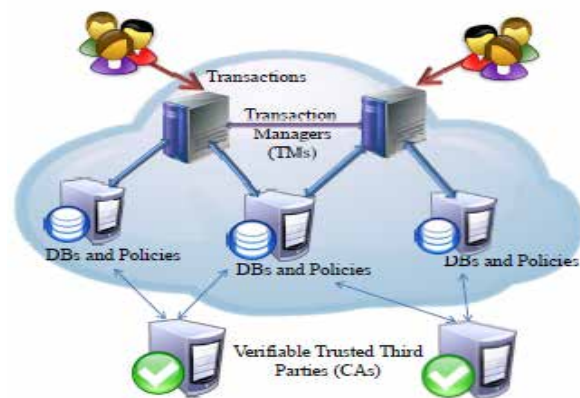

Fig.1. System Interaction

PROPOSED SYSTEM

In keyword search system, actual keyword query is submitted by the user. This query is in simple text form. The user does not need to know about any schema knowledge or query language. The query is further pre-processed using basic Information Retrieval (IR) concepts. The preprocessed query is directly applied over the indexed method. Further query results are processed by graph over index tree. The results are ranked for verification and its validity is further checked by the system with the help of relevant routing plans. It has been proposed a multi keyword search which retrieving all files containing the query keyword. It helps to get the accurate result based on the multiple keyword concepts. The users can enter the multiple words query. The server is going to split that query into a single word after search that word file in the database. Finally, display the matched file list from the database and the user gets the file from that list. The proposed multi keyword search method proves to be efficient to go back extremely relevant documents corresponding to submitted search terms.

In distributed transactional database systems, entities cooperate to form proofs of authorizations that are justified by collections of certified credentials. These proofs and credentials may be evaluated and collected over extended time periods, under the risk of having the underlying authorization policies being in inconsistent states. It therefore becomes possible for policy-based authorization systems to make unsafe decisions. It has been proposed the notion of trusted transactions when dealing with proofs of authorization. Trusted transactions do not violate credential policy inconsistencies over the lifetime of the transaction. It present a more safe transactions, that identifies transactions that are both trusted and conforms to the ACID properties of distributed database systems.

PERFORMANCE ANALYSIS

There is no data integrity violations were encountered during any transaction's execution. So the transactions would only abort due to policy inconsistency. The global consistency proofs are slightly slower than view consistency proofs. This extra latency occurs due to the additional communication between TM and the master policy server to retrieve the latest policy version.

The proposed method has the unique solution for keyword query routing by using indexing. This work efficiently carries the keyword search by graph to the relevant and valid keywords. It has been used the routing plan mechanism which identify the valid routing plan result. This method has maintained the quality of keyword query result. With the help of the proposed system the substantial performance can be achieved. To design search schemes which allow multi-keyword query and provide result similarity ranking for effective

data retrieval. The server have prevented from learning additional information from dataset and index, and to meet privacy requirements. Above goals on functionality and privacy should be achieved with low computation overhead.
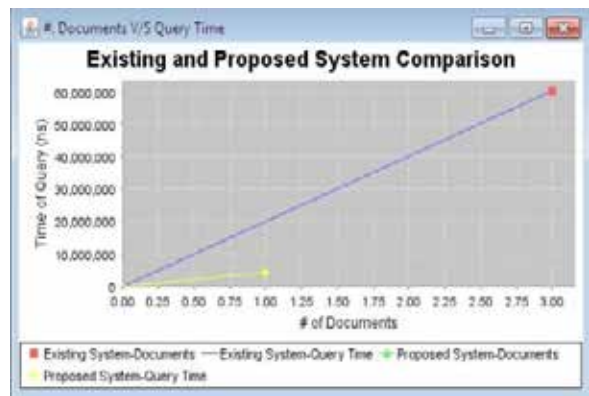

Fig. 2. Comparison Graph- No. Of Documents V/S Query Time

The graph shows the comparison between single keyword search and multi keyword search. The graph is plotted number of documents that the system's search result returned and time required to return the documents.

CONCLUSIONS

The problem of solving efficient keyword search using single keyword and multi keyword is to achieve the effective utilization of remotely stored data in database. The multi keyword search introduces low overhead on both computation and communication. Indexing method is proposed for a summary model. It merges keyword and element relationships at the different set levels. It reduces the high cost of searching and within less response time. It also gives the valid and precise result. There are several consistency problems that can arise during transaction processing. The proposed system has been defined different levels of data and policy consistency constraints and corresponding enforcement approaches that guarantee the trustworthiness of transactions.

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