

Privacy Preserving in Distributed verifiable Data Control in cloud Storage

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Abstract:

Cloud computing economically enables the paradigm of data service outsourcing. However, to protect data privacy, sensitive cloud data have to be encrypted before outsourced to the commercial public cloud, which makes effective data utilization service a very challenging task. Although traditional searchable encryption techniques allow users to securely search over encrypted data through keywords. In this paper, we define and solve the problem of secure ranked keyword search over encrypted cloud data.

I. INTRODUCTION

The content-aware search scheme, which can make semantic search more smart. The Conceptual Graphs (CGs) as a knowledge representation tool. In order to conduct numerical calculation, transfer original CGs into their linear form with some modification and map them to numerical vectors. Next, employ the technology of multi-keyword ranked search over encrypted cloud data as the basis against two threat models and raise PRSCG and PRSCG-TF to resolve the problem of privacy-preserving smart semantic search based on conceptual graphs

Specifically, we explore the statistical measure approach, i.e., relevance score, from information retrieval to build a secure searchable index, and develop a one-to-many order-preserving mapping technique to properly protect those sensitive score information. Thorough analysis when compared to previous searchable encryption schemes, while correctly realizing the goal of ranked keyword search.

FEASIBILITY STUDY

TECHNICAL FEASIBILITY:

Evaluating the technical feasibility is the trickiest part of a

feasibility study. This is because, at this point in time, not too many detailed design of the system, making it difficult to access issues like performance, costs on (account of the kind of technology to be deployed) etc. A number of issues have to be considered while doing a technical analysis.

- i) Understand the different technologies involved in the proposed system :
Before commencing the project, we have to be very clear about what are the technologies that are to be required for the development of the new system.
- ii) Find out whether the organization currently possesses the required technologies:

Is the required technology available with the organization?

If so is the capacity sufficient?

For instance – “Will the current printer be able to handle the new reports and forms required for the new system?”

ECONOMIC FEASIBILITY:

Economic feasibility attempts to weigh the costs of developing and implementing a new system, against the benefits that would accrue from having the new system in place. This feasibility

study gives the top management the economic justification for the new system.

A simple economic analysis which gives the actual comparison of costs and benefits are much more meaningful in this case. In addition, this proves to be a useful point of reference to compare actual costs as the project progresses. There could be various types of intangible benefits on account of automation. These could include increased customer satisfaction, improvement in product quality better decision making timeliness of information, expediting activities, improved accuracy of operations, better documentation and record keeping, faster retrieval of information, better employee morale.

OPERATIONAL FEASIBILITY:

Proposed projects are beneficial only if they can be turned into information systems that will meet the organizations operating requirements. Simply stated, this test of feasibility asks if the system will work when it is developed and installed. Are there major barriers to Implementation? Here are questions that will help test the operational feasibility of a project:

- Is there sufficient support for the project from management from users? If the current system is well liked and used to the extent that persons will not be able to see reasons for change, there may be resistance.
- Are the current business methods acceptable to the user? If they are not, Users may welcome a change that will bring about a more operational and useful systems.
- Have the user been involved in the planning and development of the project?
- Early involvement reduces the chances of resistance to the system and in
- General and increases the likelihood of successful project.

Since the proposed system was to help reduce the hardships encountered. In the existing manual system, the new system was considered to be operational feasible.

EXISTING SYSTEM

We show that existing proposals to achieve *anonymity* in search logs are insufficient in the light of attackers who can actively influence the search log. However, we show that it is impossible to achieve good utility with differential privacy.

DISADVANTAGES

Existing work on publishing frequent item sets often only tries to achieve anonymity or makes strong assumptions about the background knowledge of an attacker.

PROPOSED SYSTEM

The main focus of this paper is search logs, our results apply to other scenarios as well. For example, consider a retailer who collects customer transactions. Each transaction consists of a basket of products together with their prices, and a time-stamp. In this case can be applied to publish frequently purchased products or sets of products. This information can also be used in a recommender system or in a market basket analysis to decide on the goods and promotions in a store.

ADVANTAGES

Our results show that yields comparable utility to OPSE while at the same time achieving much stronger privacy guarantees.

CONCLUSION

In this paper, compared with the previous study, we propose two more secure and efficient schemes to solve the problem of privacy preserving smart semantic search based on conceptual graph over encrypted outsourced data. Considering

various semantic representation tools, we select conceptual graphs as our semantic carrier because of its excellent ability of expression and extension. To improve the accuracy of retrieval, we use trexex to simplify the key sentence and make it more generalizable. We transfer CG into its linear form with some modification creatively which makes quantitative calculation on CG and fuzzy retrieval in semantic level possible. We use different methods to generate indexes and construct two different schemes with two enhanced schemes respectively against two threat models by introducing the frame of MRSE. We implement our scheme on the real data set to prove its effectiveness and efficiency.

For the further work, we will explore the possibility of semantic search over encrypted cloud data with natural language processing technology.

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