**Dynamic Multi-Keyword Ranked Search Based on Bloom Filter Over Encrypted Cloud Data**

**ABSTRACT:**

Cloud computing has become a popular approach to manage personal data for the economic savings and management ﬂexibility in recent year. However, the sensitive data must be encrypted before outsourcing to cloud servers for the consideration of privacy, which makes some traditional data utilization functions, such as the plaintext keyword search, impossible. To solve this problem, we present a multi-keyword ranked search scheme over encrypted cloud data supporting dynamic operations efﬁciently. Our scheme utilizes the vector space model combined with TF × IDF rule and cosine similarity measure to achieve a multi-keyword ranked search. However, traditional solutions have to suffer high computational costs. In order to achieve the sub-linear search time, our scheme introduces Bloom ﬁlter to buildsearchindextree.Whatismore,ourschemecansupportdynamicoperationproperlyandeffectivelyontheaccount of the property of the Bloom ﬁlter, which means that the updating cost of our scheme is lower than other schemes. We present our basic scheme ﬁrst, which is secure under the known ciphertext model. Then, the enhanced scheme is presented later to guarantee security even under the known background model. The experimentsonthereal-worlddatasetshowthattheperformancesofourproposedschemesaresatisfactory

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/UBUNTU.
* Implementation : NS2
* NS2 Version : 2.28
* Front End : OTCL (Object Oriented Tool Command  Language)
* Tool : Cygwin (To simulate in Windows OS)