Cloud Service Negotiation in Internet of Things Environment: A Mixed Approach

**ABSTRACT**

Internet of Things (IoT) allows connected objects to communicate via the Internet. IoT can benefit from the unlimited capabilities and resources of cloud computing. Also, when coupled with IoT, cloud computing can in turn deal with real world things in a more distributed and dynamic manner. As the cloud market becomes more open and competitive, Quality of Service (QoS) will be more important. However, cloud providers and cloud consumers have different, and sometimes opposite, preferences. If such a conflict occurs, a Service Level Agreement (SLA) cannot be reached without negotiation. A tradeoff negotiation approach can outperform a concession approach in terms of utility, but may incur more failures if information is incomplete. To balance utility and success rate, we propose a mixed approach for cloud service negotiation, which is based on the “game of chicken.” In particular, if one is uncertain about the strategy of its counterpart, it is best to mix concession and tradeoff strategies in negotiation. To evaluate the effectiveness of this approach, we conduct extensive simulations. Results show that a mixed negotiation approach can achieve a higher utility than a concession approach, while incurring fewer failures than a tradeoff approach.

**EXISTING SYSTEM:**

**Disadvantage:**

* When different users give same query, same result will be returned by a typical search engine.
* It becomes difficult for the user to get the relevant content.

**PROPOSED SYSTEM:**

**Advantage:**

Personalized web search is considered as a promising solution to handle these problems, since different search results can be provided depending upon the choice and information needs of users. It exploits user information and search context to learning in which sense a query refer.

**MODULE DESCRIPTION:**

# **Number of Modules**

After careful analysis the system has been identified to have the following modules:

1. **Module.**
2. **Module.**
3. **Module.**
4. **Module.**
5. **Module:**

Personalized web search which considers individual's interest into mind and enhances the traditional web search by suggesting the relevant pages of his/her interest. We have proposed a simple and efficient model which ensures good suggestions as well as promises for effective and relevant information retrieval. In addition to this, we have implemented the proposed framework for suggesting relevant web pages to the user.

**2. Module:**

Our system considers user's profile (based on user's weblog/navigation browsing history) and Domain Knowledge in order to perform personalized web search. Using a Domain Knowledge, the system stores information about different domain/categories. Information obtained from User Profile is classified into these specified categories. The learning agent learns user's choice automatically through the analysis of user navigation/browsing history, and creates/updates enhanced User Profile conditioning to the user's most recent choice. Once the user inputs query, the system provides good suggestions for personalized web search based on enhanced user profile. Further our model makes good use of the advantages of popular search engines, as it can re-rank the

results obtained by the search engine based on the enhanced user profile.

**3.:**

Domain knowledge is the background knowledge that we used to enhance the user profile. The source which we have used for preparing Domain Knowledge is DMOZ directory. For preparing Domain Knowledge, first we have crawled the

web pages from DMOZ directory for some specified categories, where each category is represented by collection of URL's present in that category.

**4. Module:**

Using the information of user browsing history and domain knowledge, we create an Enhanced User Profile. Once the Enhanced User Profile is created, we take the user query and suggest the relevant web pages with respect the query. In our Experiment, we have used User Profile as a base case for suggesting the relevant pages and compared the results with the pages suggested from Enhanced User Profile. For each query, we suggest top 20 relevant documents from User Profile and for the same query we also suggest top 20 relevant documents from Enhanced User Profile. In order to compare the efficiency of the result, we compared the similarity of suggested documents with the user query.

**SOFTWARE REQUIREMENTS**:

Operating System : Windows

Technology : Java and J2EE

Web Technologies : Html, JavaScript, CSS

IDE : My Eclipse

Web Server : Tomcat

Tool kit : Android Phone

Database : My SQL

Java Version : J2SDK1.5

**HARDWARE REQUIREMENTS**:

Hardware : Pentium

Speed : 1.1 GHz

RAM : 1GB

Hard Disk : 20 GB

Floppy Drive : 1.44 MB

Key Board : Standard Windows Keyboard

Mouse : Two or Three Button Mouse

Monitor : SVGA