

EFFICIENT WEB SERVICE SELECTION METHODOLOGY BASED ON QUALITY OF EXPERIENCE

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Abstract: Web services are open standard (XML, SOAP, HTTP etc.) based Web applications that interact with other web applications for the purpose of exchanging data. In existing system, we need to store large amount of information about the users and it consumes more time for accessing the data. In this project, we explore the feasibility of incorporating perceived quality from user's perspective for service selection and composition. We name such quality attributes as quality of experience (QoE). We implemented Web Service which is used to fetch the Data from different Web servers and display the data which has the most number of visitors. We get feedback from the user, it increases the efficient of QoE. Quality of Experience is easy to access and fetch the information, so it reduces our fetching time. JSON (JavaScript Object Notation) is a lightweight format that is used for data interchanging. We use Json Parser for Web services responses. It converts the XML objects to Java notations.

Keywords: Quality of Experience, Quality of Service, Service Composition, Web Services, Json Parser .

I. INTRODUCTION

Service oriented architecture (SOA) provides a mechanism to publish and receive various forms of information through standard protocols. A common technology for SOA implementation is Web services. Al-Masri et al. [1] report that there is more than 130% growth in the number of published Web services in the last couple of years. Similar observation can be made by reviewing the statistics from the Web service search engines such as Seekda [2]. In particular, Programmable Web directory [4] indicates an exponential increase in the number of Web services over the last three years. Such rapid growth in the number of services increases the importance of the service selection task due to the presence of low quality services. Non-functional attributes are exploited as the key decision making criteria in the state of the art approaches for service selection, e.g., [5]. As a result, quality of service (QoS) becomes a significant concept for service selection since QoS properties describe non-functional attributes of services. Most research in QoS-based service selection [1, 2, 3, 6] focus on proposing a comprehensive pre-defined QoS schema to represent service requests and offers or implementing a selection algorithm to achieve an optimized composition. However, the process of obtaining QoS information is largely overlooked. There are mainly two ways to obtain QoS information: static release, and runtime monitoring [6]. Service providers publish static release of QoS information. The static release is not frequently updated, and the QoS attribute are measured in a specific environment and platform. The published QoS information may be different if the same service invoked from a

different geographical location or through different devices. Hence the static information is less reliable. Runtime monitoring is the main way to collect objective and effective QoS information. Runtime monitoring approaches require analysis of Web service quality at client side. Client side evaluation of real world services are resource intensive, time consuming and expensive. These issues threaten the applicability of QoS-based service selection approaches, e.g., [1, 2, 3]. An alternative source of information about the quality of Web services is online reviews available on the Web. Web 2.0 user-oriented content generation approach has enabled people to broadcast their knowledge and experience to the mass. Online user reviews are one example of such phenomenon. Users express their experience via online reviews to reveal their satisfactions and disappointments about services. In this paper, we explore the possibility of exploiting user reviews for service selection applications. We propose the concept of quality of experience (QoE) which captures and quantifies customer feedback on a service. In this approach, QoE attributes are extracted from online reviews reflecting user experience feedback on Web services. However, the first challenge towards the proposed approach is extracting QoE attributes from user reviews. User reviews are written in natural language and presented as unstructured data. Therefore, it is not trivial for computers to understand, analyze, and aggregate QoE from the Web.

II. EXISTING SYSTEM

The Modern enterprises across all spectra are moving towards a service-oriented architecture by putting their

databases behind Web services thereby providing a well-documented, platform independent and interoperable method of interacting with their data. The shield applications developers interact with the data sources for providing access to business objects, thus enabling them to focus on the business logic only. It has lot of disadvantages such as consuming more time, quick access, etc. The main disadvantages of this system are the system need to store a large amount of private information about users and able to share this information with other entities, thus increasing the risk of privacy violation during service composition and this system consuming more time. In existing system, the Quality Of Service tool is used. QoS refers to non-functional properties of Web services such as performance, reliability, and security. The Modern enterprises across all spectra are moving towards a service-oriented architecture by putting their databases behind. So we can not access these servers.

III. PROPOSED SYSTEM

The QoE (Quality of Experience) services such as weather service, time zone service, currency converter service and location searching service are provided. The services are provided the user based on the user queries. We get feedback from the user, its increase the efficient of QoE. Quality of Experience is easy to access and fetch the information, so it's reduce our fetching time.

We Proposed services such as weather service, time zone service, currency converter service and location detail searching service in a secure manner by processing privacy models among the shared entities. In this Quality of Service we get feedback from user and stored in DB. It's used to provide a good and efficient internet service. QoS consume low time, so it's very fast to fetch the informations.

A user can provide her opinion on any aspect of a service, e.g., cost and performance. Each aspect of a service is called QoE attribute. Contrary to QoS, QoE reflects quality from the user's point of view. The primary source of QoE is online reviews. The user can give their feedback based on their experience and the administrator can see the user's feedback. Each user and the administrator have separate login id and password. The administrator received the mail id of the user and their feedback.

IV. MODULES

1. Authentication and authorization
2. Privacy policies
3. Service utilization
4. Json parser
5. QoS (quality of service)

Authentication and Authorization: The service register modules depict a user registration process in the service sharing environment. The administrator verifies user fields based on privacy policies for providing user desire services. The services are weather service, time zone service, currency converter service and location detail searching service.

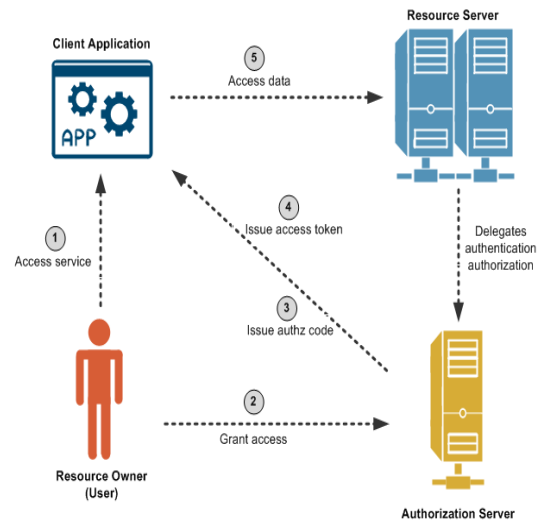


Figure 1: Authentication and Authorization process

Privacy Policies : The administrator builds privacy models that consists privacy policies for providing access permission for the user to access the services such as weather service, time zone service, currency converter service and location detail searching service.

Service Utilization : The user can utilize the services such as weather service, time zone service, currency converter service and location detail searching service in a secure manner by processing privacy models among the shared entities.

Weather Service: The weather service provides weather attributes such as minimum-Celsius, maximum-Celsius, minimum-Fahrenheit and maximum Fahrenheit in the user specified location. The weather service also provides mountain weather attributes at top, middle and bottom position of the user specified mountain.

Currency Converter Service: The currency converter service converts one form of currency format in to another currency format based on user specification.

Location Detail Searching Service: The location detail searching service provides location details such as name, country, latitude and longitude information of the user specified location.

JSON Parser: JSON (JavaScript Object Notation) is a lightweight format that is used for data interchanging. We use Json Parser for Web services responses. It converts the XML objects to Java notations. Like XML, it is human-readable, platform independent, and enjoys a wide availability of implementations. JSON is a subset of the

object literal notation of JavaScript. Data represented in JSON can be parsed by JavaScript easily, so it is ideal for AJAX based web applications. For your information, JSON does not have any support for datetime as JavaScript doesn't have its own datetime data type. Rather, datetime in JavaScript is an object. We're going to write the server in WAI/Warp, and the client in http-conduit. We'll be using aeson for JSON parsing and rendering.

Qos(Quality of Service): In this Quality of Service we get feedback from user and stored in DB. It's used to provide a good and efficient internet service QoS consume low time,so it's very fast to fetch the informations.

V. ENHANCEMENT

In future, we will perform a user study to show the effectiveness of QoE attributes in a service composition process. We would like to extend our approach to address the bootstrapping problem for QoE attribute identification.

VII.CONCLUSION

In this paper, we proposed a dynamic privacy model for Web services. The model deals with privacy at the data and operation levels. We also proposed a negotiation approach to tackle the incompatibilities between privacy policies and requirements. Although privacy cannot be carelessly negotiated as typical data, it is still possible to negotiate a part of privacy policy for specific purposes.

VIII. REFERENCES

- [1]. Sowtharya T, and Priyanka V "Efficient Web Service Methodology Based on Quality Of Experiences"
- [2]. G. Canfora, M. Di Penta, R. Esposito, and M. L. Villani, "An approach for QoS-aware service composition based on genetic algorithms," in Proc. 7th Annu. Conf. Genetic Evolutionary Comput., 2005, pp. 1069–1075.
- [3]. S. Ran, "A model for Web services discovery with QoS," ACM SIGecom Exchanges, vol.4,pp. 1–10, 2003.
- [4]. L. Zeng, B. Benatallah, A. H. H. Ngu, M. Dumas, J. Kalagnanam, and H. Chang, "QoS-Aware middleware for web services composition," IEEE Trans. Softw. Eng., vol. 30, no. 5, pp. 311–327, May 2004.
- [5]. W. Al-Masri and Q. H. Mahmoud, "Investigating web services on the world wide web," in Proc. 17th Int. World Wide Web Conf., 2008, pp. 795–804.
- [6]. G. Ye, "A QoS aware model for web service discovery," in Proc. 1st Int. Workshop Educ. Technol. Comput. Sci., 2009, pp. 740–744