

C. Calculation Comprehensive QoS Value

The quantization value vector of evaluation grade {very satisfied, quite satisfied, general, not too satisfied, unsatisfied} is shown as follow: $(n_1, n_2, n_3, n_4, n_5) = (5, 4, 3, 2, 1)$.

$$\eta(QoS) = \sum_{k=1}^5 n_k \cdot \mu_k(qos)$$

is called as the composite value of Web service QoS attribute value: $\eta(qos) = 3.1418$

The evaluation of Web service QoS provides the basis to choose the right service for the requesters of Web services. The third institution can accurately calculate the value of Web service QoS provided by service publishers for user's selection; evaluation of the Web service QoS attribute not only can make the users of service get better service, but also can make providers of service constantly upgrade the service in order to improve the competitiveness on the Internet

V. Conclusion

Most of the existing fuzzy comprehensive evaluation algorithms are mainly based on "weighted sum", they have not solve the problem of redundant attribute value in the evaluation of Web service QoS. In this paper, from the view of target classification, a membership degree conversion algorithm is put forward, the algorithm can be called "filter, ratio, synthetic", It realizes conversion of membership degree without redundancy membership degree. Shown by algorithm, The evaluation conclusion is made by fuzzy evaluation matrix. Determining reasonably index membership degree vector and the importance of weight value of the sub-index is a basic

computing aspect related to whether the evaluation conclusion is reliable.

In this paper, Web services is described using OWL-QoS ontology, matching service functional and non-functional properties, and then use the factors of quality membership degree conversion algorithm to evaluate web service. The evaluation result provides a comprehensive evaluation value of the Web service QoS. It provides the basis to level classification among Web services with same function, so that service requester can select the optimal Web services to meet their needs.

References

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