Abstract

UDDI (Universal Description, Discovery, and Integration) is a directory to register and locate web service application. It facilitates businesses to easily and dynamically find and transact with
one another through their preferred services. The present centralized UDDI structure is less robust and it is difficult to support a large number of Web services. It has become the bottleneck of the whole system and would cause single node failure problems. There is lack of interoperability between UDDI registries because different registries have different usage policies and pose various requirements on acceptable announcements and retrieval demands of Web services. These problems can be solved by distributing the functions and volume set of data of UDDI. Distributed UDDI is built upon the functionalities similar to distributed database. This suggests that the problems in distributed database can also be experienced in distributed UDDI. This paper discusses the issues and challenges in distributed UDDI, similar problems between distributed UDDI and distributed database and the existing solutions for them.

References

- Libing Wu, Yanxiang He, Dan Wu, Jianqun Cui “A Novel Interoperable Model of Distributed UDDI” International Conference on Networking, Architecture, and Storage.
- Roberto Podesta’ France roberto.podesta@inria.fr “A Lightweight Inter-node Operation for UDDI Cloud” IEEE conference paper.
- Shoujian Yu, Qin Zhu, Xiaoling Xia, and Jiajin Le “A Novel Web Service Catalog System Supporting Distributed Service Publication and Discovery” Proceedings of the First International Multi-Symposiums on Computer and Computational Sciences (IMSCCS'06).
- Zakaria Maamar “Replication mechanism over a set of Distributed UDDI Registries”.


Quanhao Lin, Ruonan Rao, Minglu Li, “DWSDM: A Web Services Discovery Mechanism Based on a Distributed Hash Table”, Fifth International Conference on Grid and Cooperative Computing Workshops, IEEE 2006.


Zongxia Du, Jinpeng Huai, Yunhao Liu, “Ad-UDDI: An Active and Distributed Service Registry” Hong Kong Univ. of Science and Technology, Hong Kong.


Emil Stanescu, Ileana Stanescu, Victor Popa, “Distributed Infrastructure for Semantic Web Services”, MGC’05, ACM.


W3C Member Submission, “OWL-S: Semantic Markup for Web Services”, Available: http://www.w3.org/Submission/OWL-S

Index Terms

Computer Science

Information Sciences
**Keywords**

<table>
<thead>
<tr>
<th>Distributed database</th>
<th>Distributed UDDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federated</td>
<td></td>
</tr>
<tr>
<td>P2P</td>
<td></td>
</tr>
</tbody>
</table>