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# 主动分布式Web服务注册机制研究与实现

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## Abstract

In SOA (service oriented architecture), the service registry takes place an important role which complies with UDDI (universal description, discovery and integration) specification. However, some tough problems are still in the way of present UDDI registry. For example, current registry has to replicate all web service publications in all UBR (universal business registry) nodes, and thus becomes impractical for a large number of web services. Furthermore, present UDDI registry is a passive directory and cannot guarantee the real-time validity of the services. In this paper, an active distributed architecture named as adUDDI is proposed for federated web service publication and discovery among multiple registries. With the distributed architecture, the service information is published within one or more adUDDIs so as to avoid the performance bottlenecks in centralized configuration. With the active monitoring mechanism, the service information is updated automatically and then the service requestor may find the latest service information. Finally, comprehensive simulations are evaluated and the results show that it outperforms the existing approaches.

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## 摘要

服务注册库作为SOA(service oriented architecture)结构中的重要组成部分,目前主要使用的UDDI (universal description, discovery and integration)及基于UDDI的UBR(universal business registry)的实际使用情况较差.主要原因在于:UBR的注册信息在各注册节点间完全复制,导致其随着服务数量的增加变得较难管理和维护;另一方面,目前UDDI只能提供被动的目录服务,而统计研究发现,很少有组织或个人在发布服务后主动更新信息,这就造成了其上服务信息的有效性差.提出了一种主动分布式服务注册机制(adUDDI),利用服务主动监测机制提高注册库中服务信息的实时有效性;利用分布式结构减轻统一注册中心的负担.通过实验分析说明,此方法可提高SOA结构的可用性,为基于Web服务构建可靠业务中间件提供了基础.

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