Abstract

Current huge commercial web applications are developed using integration of many heterogeneous web applications. Service-Oriented Architecture is one of the widely accepted methodologies in IT industry. SOA applications are realized using Web services. Web Services have become an emerging technology to design and development of complex web applications. But when Web services are used, performance of application decreases. This paper addresses...
Reducing Performance Problems of XML Web Services

this issue and discusses the reasons why performance decreases. Objectives of this paper is to
discuss key performance issues that characterize Web Services-based applications, and to
begin to explore the possibilities for performance monitoring of such advanced and complicated
distributed applications. After performing many experiments the correct approach to be adopted
for designing efficient XML Web services is suggested.

Reference

- Alaa M. Riad, Ahmed E. Hassan, Qusay F. Hassan, Investigating Performance of XML
  Biology, JCSB/Vol.2 September-October 2009
- Bustamante FE, Eisenhauer G, Schwan K, Widener P, Efficient wire formats for high
- Cameron R D, Herdy K S, Lin D, High Performance XML Parsing Using Parallel Bit
  Accessed on 14th Jan 2011
- Channabasavaiah K, Holley K, Tuggle E, Migrating to a service-oriented architecture.
  Accessed on 14th Jan 2011
- Chiu K, Govindaraju M, Bramley R, Investigating the limits of SOAP performance for
  scientific computing. Proceedings of the 11th IEEE International Symposium on High
  Performance Distributed Computing pp246-254, 2002
- C. Kohlhof and R. Steele. Evaluating SOAP for high-performance business applications:
  Real-time trading systems, In proceedings of the International WWW Conference, Budapest,
- Curbera F, Duftler M, Khalaf R, Nagy W, Mukhi N, Unraveling the web services web: An
  introduction to SOAP, WSDL, UDDI. IEEE Internet Computing 6: 86-93, 2002
- D. Davis and M. Parashar, Latency performance of SOAP implementations, In
  proceedings of the 2nd IEEE International Symposium on Cluster Computing and the Grid,
  2002.
- Dennis Sosnoski, Java Web services : WS-Secure Conversation performance, IBM, 2010

  http://www.w3.org/tr/rec-xml/
- Frank Cohen, Discover SOAP encoding’s impact on Web service performance,
  22nd Sep 2010
- Frank Cohen, Performance testing SOAP-based applications, DOI=
- Gang Wang, Cheng Xu, Ying Li, Ying Chen, Analyzing XML Parser Memory
  Characteristics: Experiments towards Improving Web Services Performance, In 2006 IEEE
  International Conference on Web Services (ICWS 2006), 18-22 September 2006, Chicago,
- Papazoglou MP, Service-Oriented Computing: Concepts, Characteristics, and Directions", Proceedings of the fourth IEEE international conference on web information systems engineering (WISE’03), 2003
- Ramesh Nagappan, Sameer Tyagi, High Performance Web services, JavaOne, Sun 2004
- Rob Howard, Web Services with ASP.NET, MSDN, 2001

Index Terms
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