

XML WEB SERVICES:

The Global Computer?

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Abstract The Web Services Description Language (WSDL) (Christensen et al., 2001) specifies how to implement remote procedure calls over the web via messages encoded in XML. WSDL promises a web-based programming model that works across multiple devices, multiple operating systems, and multiple organisations. Both commercial and open source implementations are available. There are critics, but momentum is building. We may say that WSDL is a detailed—though certainly partial—blueprint for the long awaited global computer. The first goal of my talk is simply to explain the basic ideas of WSDL and related specifications. My second goal is to explore some of the questions raised by WSDL, and some of the opportunities we have to apply ideas from theoretical computer science. In particular, I will report the results of an ongoing project to investigate security properties of XML web services.

References

Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S. (2001). Web services description language (WSDL) 1.1. W3C Note, at <http://www.w3.org/TR/wsdl>, 15 March 2001.