

Preface

I first encountered XML as an integration technology in early 1998 during a visit to KPN Telecom in the Netherlands. The company was asking for proposals to help it develop an enterprise integration architecture based on the hub and spoke model, using XML as the canonical message format that would tie together the company's thousands of systems and hundreds of programming languages. My employer at the time, Compaq (Digital), did not win the project, but the controversial idea of using XML in a data-independent integration layer stuck with me. Now Web services are fulfilling that promise for everyone.

I joined IONA in the fall of 1999 and among other things soon began chairing the Object Management Group submitter's team drafting the XML Value specification, mapping XML to CORBA. In early 2000, I got involved in the new effort Microsoft was leading to define a distributed computing protocol for the Internet: SOAP. Previous attempts to promote the CORBA protocol had failed by then, and the W3C's own attempt, HTTP-NG, had also fallen flat. But the idea of serializing XML over HTTP seemed to hold promise for a solution.

IONA formally joined the SOAP effort in March 2000, before IBM joined and put the effort on the map. I worked with Andrew Layman, David Turner, John Montgomery, and others at Microsoft to bring IONA into the picture as a SOAP supporter and, in fact, as the first J2EE vendor to support SOAP. IONA demonstrated Web services interoperability at several Microsoft events during that year. The Microsoft presenter would introduce its SOAP Toolkit and demonstrate interoperability with a COM server. Then the IONA presenter was called on to describe how the same SOAP interface could interoperate with a Java server.

After that, I organized IONA's initial participation at W3C, supported the establishment of the XML Protocols Working Group, helped write the group charter, and began representing IONA at the XML Protocols Working Group, and more recently, at the Web Services Architecture Working Group. IONA has supported the submission of SOAP to W3C, WSDL, SOAP with Attachments, and XKMS. One thing led to another, and I eventually took on the responsibility of delivering IONA's implementation of Web services integration technologies.

In October 2000, I represented IONA at the UDDI kick-off meeting. It was then that I realized the potential for Web services technologies for application integration inside the firewall. Why not use SOAP, UDDI, and WSDL for internal projects? Then you could use the same approach for integration, regardless of whether it's inside the company or across the Internet.

David Vaskevitch presented at the UDDI conference, and this reminded me of the 1995 chapter in *The Future of Software* that I coauthored for Digital Equipment Corporation. David was author of the Microsoft chapter in that same book. In the Digital chapter, "The Key to the Highway," Peter Conklin and I compared the potential power of software standards to the impact of standards on the automobile. Standardized parts enabled mass production, which revolutionized the industry and society.

Today, software remains essentially a craft business, as automobiles were at the start of the twentieth century. Having widely adopted standards has remained elusive despite many attempts. We may be at the crossroads; Web services may finally do the trick.

I hope this book helps you understand what Web services are all about. If it serves as a decent introduction to the main ideas, concepts, and technologies, it will have done its job and find its place in the Web services community.