

Design Method for Interoperable Web Services

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ABSTRACT

The emergence of Web services provides an opportunity to address e-business application interoperability in the context of service-oriented computing. In this paper we discuss the benefits of the service-oriented approach to implementing e-business applications and identify the need for well-designed service interfaces to facilitate interoperability within application domains. We describe a service interface design method based on identifying elementary business function and converting standard message (document) formats into a set of corresponding service-interfaces. We then apply data engineering principles to refine the interface design, and show how data normalization applied to interface parameters can lead to minimization of coupling and maximization of cohesion of service operations. We illustrate our design approach using a travel application example based on the Open Travel Alliance (OTA) specification.