

Design of a Service-Enabled Dependable Integration Environment

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Abstract : The aim of information systems integration is to make all the data sources, applications and business flows integrated into the new environment so that unwanted redundancies are reduced and bottlenecks and mismatches are eliminated. Two issues have to be dealt with to meet such requirements: the software architecture that supports resource integration, and the adaptor development tool that help integration and migration of legacy applications. In this paper, a service-enabled dependable integration environment (SDIE), is presented, which has two key components, i.e., a dependable service integration platform and a legacy application integration tool. For the dependable platform for service integration, the service integration bus, the service management framework, the dependable engine for service composition, and the service registry and discovery components are described. For the legacy application integration tool, its basic organization, functionalities and dependable measures taken are presented. Due to its service-oriented integration model, the light-weight extensible container, the service component combination-oriented p-lattice structure, and other features, SDIE has advantages in openness, flexibility, performance-price ratio and feature support over commercial products, is better than most of the open source integration software in functionality, performance and dependability support.

Keywords : application integration, dependability, legacy, SOA

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