

Migrating Application Integrations¹

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Abstract.

The internal functionality of middleware is highly variable and thus, well-constructed integrations are difficult to perform without understanding the architectural style of the middleware and the adaptive connections needed make components in an application integration “middleware-aware.” In this paper, we use IBM’s WebSphere® MQ to implement two different architectural styles of integration: request/reply and publish/subscribe. The middleware supports both approaches by using different configurations of *integration enablers*, functionality used for controlling, routing, and translating messages. Component connectors attached to the middleware also contain integration enablers, and trade-offs exist between highly *centralized solutions* in which the middleware is responsible for the majority of the integration functionality and highly *localized solutions*, in which application connectors are responsible for integration to the largest extent possible. We discuss the trade-offs related to increasing localized adaptation at the component end versus increasing the role of the middleware in customized integrations.

¹ This research is sponsored in part by AFOSR (F49620-98-1-0217) and NSF (CCR-9988320).