Semantic Integration
How You Can Deliver Business Value, Today

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Executive Summary

Semantics, the study of meaning, gives system developers powerful tools for understanding, implementing and managing complex systems. Semantics are intimately tied to today's most promising technologies, including:

- Integration using Web Services or Enterprise Application Integration technologies,
- Data standards based on XML, XML Schema, and XSLT,
- Collaboration, Business Process Management, Business Rules, and
- The Semantic Web.

Integration is about creating networks of interrelated IT systems to solve real world business problems. Solutions such as Customer-to-Cash, 360° Customer View, and Order-to-Delivery require detailed collaboration between a myriad of business systems. These solutions require coordinating data, activity and responses from applications with acronyms like ERP, CRM, SCM, PDM, BSS, and DSS from across the enterprise and beyond.

Leveraging semantics in integration has the potential of accelerating project cycles and saving industry up to $100 billion annually while creating more durable and effective systems. Spending around integration is approximately $300 billon annually, with roughly $200 billion on the labor-intensive resolution of semantic issues[1]. Issues that range from the straight forward conversion of units of measure, (e.g., dollars to euros or pounds to kilos) to complex problems like understanding if a customer record for "Ford" should be the same as one for "Ford Motor Company," "Ford's Fashion Models," or "Ford Fashion Flooring."

Currently, most research on semantics, targets interoperability between new generations of systems. Combining semantics and integration will be compelling and inevitable if we can harness our integration investments while preserving our investment in existing systems, systems that cost the U.S. corporations an estimated $3 trillion to build[2]. To this end, this paper presents a framework that managers, architects and developers can use to begin realizing the potential of semantics in integration today.

The framework is designed to focus integration projects on high-return opportunities to assure that project costs don't overwhelm project benefits. The paper examines integration processes, resources and technologies to identify the sources of semantics that can be most directly leveraged into the framework. Projects that use the framework in conjunction with industry standard middleware can cost effectively reconcile semantic and syntactic differences between existing application systems to integrate them into sophisticated networked solutions.

The paper concludes with framework implementation considerations and introduces Contivo's innovative and patented semantic integration technologies. Implementing the framework with Contivo's unparalleled level of automation can optimize the effort of teams implementing semantic integration.

Please contact Contivo for a copy of the full paper and a demonstration of how our semantic integration solutions can deliver value today.

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[1] Dave McComb. <u>Semantics in Business Systems: The Savvy Manager's Guide.</u> Morgan Kauffman. September 2003

[2] Ibid

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