

Managing the Intelligent Enterprise

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Over the last few years, we have seen the transformation of the traditional monolithic enterprise, in which all operations were performed in-house, to the *extended enterprise*, which consists of a network of collaborating entities. Global operations, outsourcing, and increasing specialization have all contributed to this trend. One challenge facing the extended enterprise is how to reconnect the information flows and business processes that were disconnected as the enterprise disaggregated. The emergence of web services, service-oriented architectures, and business process modeling and execution standards are helping to address this challenge.

Our contention is that the next phase of evolution is the rise of the *intelligent enterprise*, which is characterized by being able to adapt quickly to changes in its operating environment. The intelligent enterprise monitors its own business processes and its interactions with customers, partners, suppliers, and collaborators; it understands how this information relates to its business objectives; and it acts to control and optimize its operations to meet its business objectives. Decisions are made quickly and accurately to modify business processes on the fly, dynamically allocate resources, or change business partners (e.g., suppliers, service providers) and partnerships (e.g., establish new service level agreements).

This talk will describe challenges in managing the business operations of an intelligent enterprise. While a plethora of tools exist for managing the IT infrastructure (servers, storage, and network resources) of the enterprise, there is little systematic support today for the closed loop management and control of business operations. We will describe technology approaches to *intelligent business operations management* that we are pursuing at HP Labs., the progress we have made, and some open research questions.