Integrating The Business Cloud

Francisco Curbera  
IBM T.J. Watson Research Center  
Yorktown Heights, New York  
USA  
curbera@us.ibm.com

Abstract

Today’s organizations consume an increasing share of their computing resources as computing services, using an on-demand model and paying only for what they use. They consume cloud business applications and processes, and store and analyze vast amounts of information on cloud provisioned resources. Cloud computing is dramatically reducing the capital required to support IT operations, while bringing unprecedented openness, flexibility and access to enterprise computing.

One of the paradoxes of this new environment is that openness and easy access to services and resources results in the creation of new barriers and computing silos. New ‘born in the cloud’ enterprises are quickly discovering the difficulty of integrating SaaS services into their daily operations in efficient, secure and reliable ways. SaaS APIs are as siloed as traditional enterprise applications, if not more. Data is still represented in heterogeneous formats and kept in multiple application stores. Thus, while access and delivery have fundamentally improved, the core problems of process and data integration remain. If anything, they are getting harder.

Successful technologies for process and data integration in the cloud will differ fundamentally from existing approaches for enterprise integration. While existing approaches focus on eliminating silos and leveling access to process and information, cloud integration will acknowledge barriers as the price of extending our reach beyond the limits a single organization and focus on linking capabilities and information. Instead of reengineering processes, new process integration technology will link processes and application services offered by specialized providers, leveraging instead of replacing available processes. Instead of coercing heterogeneous information into unified schemas, the new approach to information integration will link enterprise data and open data to offer virtual access to much richer information set.

New cloud integration services are already being built leveraging a collection of technologies born on the Web and also within the enterprise. They include “low touch” technologies such as process correlation and mining, process analytics, linked and open data, and provenance among others. This keynote will discuss trends in SaaS and cloud-based integration, and review some of the foundational technologies that can support a new cloud centric data and application integration paradigm.