Turbo-charge Salesforce with IBM App Connect Professional
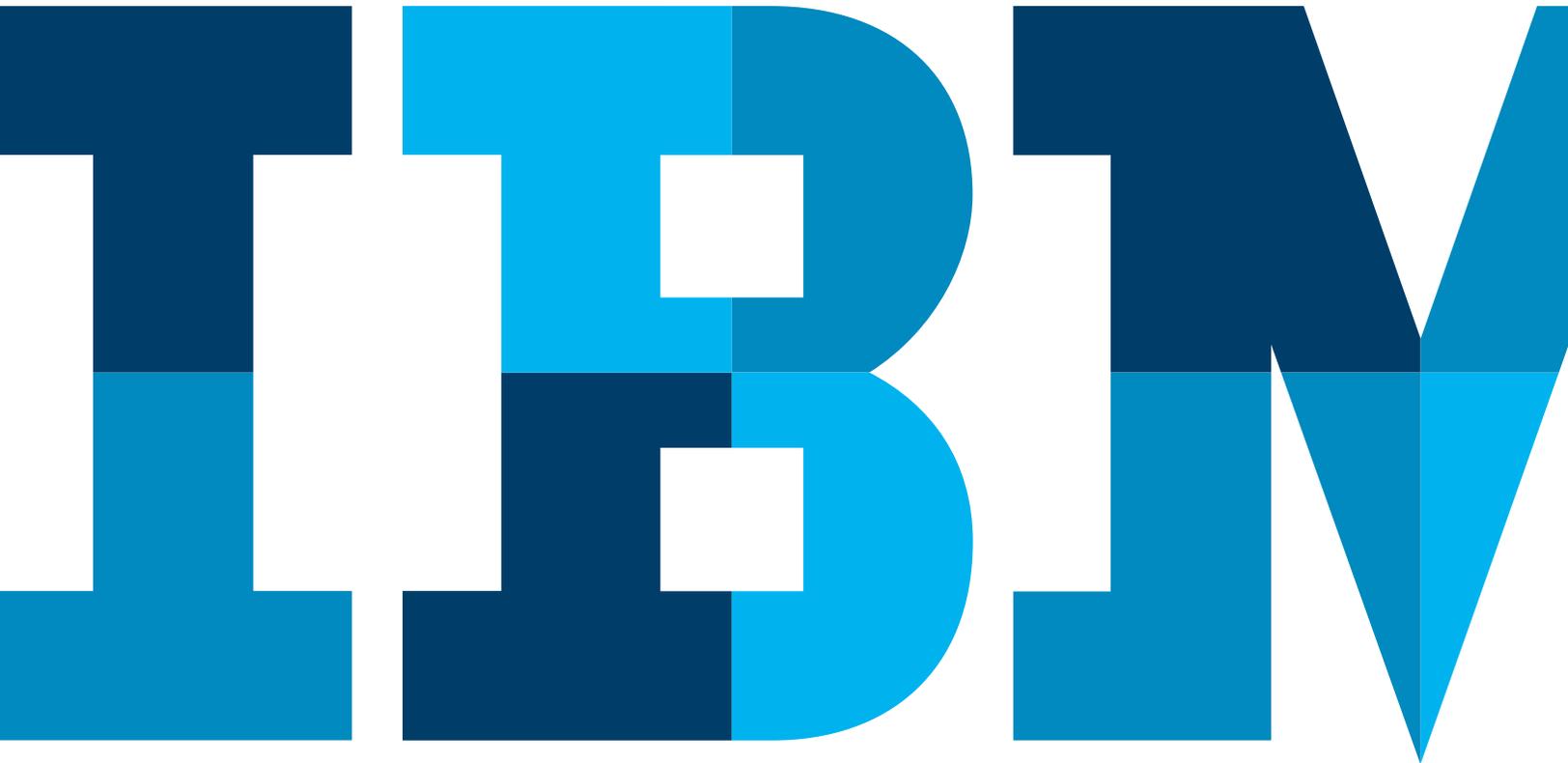
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Introduction

Cloud adoption by enterprises is creating a need for integration like never before. Integration is no more just a core IT function. SaaS adoption is most often driven by line of business and has resulted in the creation of shadow IT teams who view integration as a means to an end, the end goal being faster returns on SaaS investments. Today's dynamic business environment requires the core IT teams to work closely with these line-of-business shadow IT teams to deliver rapid, innovative and low-cost solutions.

For businesses moving to SaaS, Salesforce.com's cloud offerings—including Sales Cloud, Service Cloud, Marketing Cloud, Community Cloud, Analytics Cloud, App Cloud—are an attractive alternative to complex, traditional on-premises solutions. These offerings add to business agility, allowing organizations to meet changing business needs very quickly and reduce IT costs by enhancing resource efficiency, improving simplicity and minimizing setup time. Furthermore, subscription-based pricing fuels SaaS adoption as it means fewer budgetary issues get in the way of procuring a new application.

However, adopting cloud-based applications does not come without its challenges. A successful deployment needs critical business information to be accessible throughout the implementation process. In many midsize and large companies, this information exists in highly customized on-premises backend systems such as enterprise resource planning (ERP) and financial applications. In order to realize the full benefit of Salesforce.com's cloud offerings, this challenge must be addressed.

According to studies by major analysts, Integration Platform as a Service (iPaaS) has emerged as a serious alternative to traditional software-based integration due to a faster time to value. This paper highlights how IBM's iPaaS offering—IBM App Connect Professional—can help turbo charge your cloud experience, in particular, Salesforce.com, and highlights the downside of choosing alternative integration approaches to solve these challenges.

Salesforce.com and the growth of cloud computing

Moving to cloud-based applications minimizes the pain of "owned and operated" applications. The complexities, time, and costs associated with implementing these on-premises solutions are well known. Most companies would prefer a simpler, faster, and lower cost solution for managing customer interactions and are attracted to Salesforce.com for the advantages it provides to IT departments and business users:

- *Rapid implementations*. Since there is no software to physically deploy with salesforce.com, there is less demand on IT resources and this enables faster implementation. Adding users to the application is as simple as assigning a user ID and password for each person, so they can be up and running quickly
- *Ease-of-use*. By delivering comprehensive functionality in a simple, familiar browser-based interface, Salesforce.com's offerings are intuitive for users and require minimal training
- *Low IT impact*. Salesforce.com's offerings are less of a burden for IT but still deliver high business impact. The solution does not require new IT infrastructure to get started, and on-going management and maintenance require fewer IT resources than traditional "owned and operated" applications
- *Subscription pricing*. Salesforce.com offerings have a much lower upfront cost because companies subscribe to the service by paying a monthly fee based on the number of users. For immediate results, fairly simple integration with other business systems is critical to realize their full value and increase user adoption

Integration: The last barrier to cloud computing

Companies adopting Salesforce.com's cloud offerings view application integration as the critical component to harmonize business processes across their hybrid application landscape. With integration, business users of a cloud application can maximize their productivity by gaining access to critical information unlocked from other systems and made available in real time. And by maximizing user productivity, a company is able to dramatically increase the economic value of their investment. Some examples of cloud integration scenarios for Salesforce.com customers include:

- Data migration from legacy systems to Sales Cloud, Service Cloud, Marketing Cloud, Community Cloud, Analytics Cloud, App Cloud
- 360-degree view of customer information between Sales Cloud and on-premises ERP applications
- Order, invoice and payment visibility from ERP to Sales Cloud
- Lead-to-opportunity integration between Sales Cloud and other marketing automation systems
- Support cases and incident tracking data synchronization between Service Cloud and other legacy applications
- RMA tracking and warranty information synchronization between Service Cloud and other legacy applications
- Real-time event feeds from hundreds of legacy applications to Chatter
- Connecting Custom Cloud applications with home-grown applications and with business partner solutions

Figure 1: Salesforce.com Connectivity to Enterprise Applications

Since cloud applications offer similar benefits to all customers, any advantages gained at one company are just as easily available to its competitors. Cloud applications by themselves provide little differentiation unless they are integrated with a company's back-end applications to streamline core business processes. Retaining this differentiation and making the enormous quantity of corporate data available to the newer, more cost-effective cloud systems brings the issue of application integration to the forefront. Application integration has become the loyalty application for cloud providers; the more integrated they are with the rest of their customers' enterprise applications, the more valuable they are to their customers. Despite this critical need, application integration continues to be a big hurdle for cloud adoption. Why has cloud application integration been so challenging? The answer lies in the fact that traditional choices have been incomplete.

Traditional choices for cloud integration

Traditionally, companies had the following choices for solving cloud integration challenges:

- *Use on-demand cloud integration tools.* On-demand cloud integration tools have the required functionality to complete simple cloud-to-cloud integration scenarios. However, they lack the sophisticated capability that is required to integrate with complex on-premises applications that have been extensively customized and to harmonize integration processes across this hybrid application landscape. As a result, they fail to provide enterprise-grade quality and have mainly been adopted by smaller companies.
- *Implement on-premises software platforms (traditional middleware solutions).* The on-premises middleware platforms evolved to meet integration needs in large enterprises. They provide sophisticated functionality to solve business process management (BPM); extract, transform, and load (ETL); and enterprise application integration (EAI) problems. This rich functionality makes these platforms a great fit for complex on-premises integration and service oriented architecture (SOA) projects. However, companies are seeking solutions that are built from the ground up for cloud integration projects, providing the speed and simplicity that is expected from cloud deployments.
- *Write custom code.* Many companies opt to develop custom code for integration. While custom code provides an immediate fix at a seemingly lower cost, companies quickly realize that maintaining custom code is a labor intensive and time consuming process and that the "hidden costs" go well beyond the initial coding. Custom code also requires specialized skills that most IT organizations lack or cannot obtain easily. Finally, custom code requires up-front investments in time and resources that delay the benefits of using cloud applications.

Providing integration with any of these traditional approaches substantially undermines the value of cloud applications and frustrates users who are expecting quick results. The poor fit between traditional integration approaches and the requirements of cloud computing has created the need for iPaaS.

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IBM App Connect Professional

Integration platform-as-a-service (iPaaS)

Hypervisor Edition
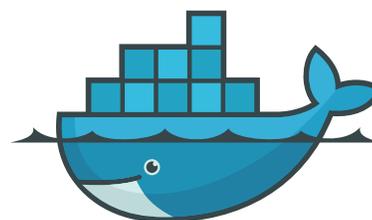
Docker Image

Figure 2: Three deployment options

The next-generation cloud integration platform: IBM App Connect Professional

Over last few years, a new breed of next-generation cloud integration platforms has emerged that provides everything that small, midsize, and large companies need to successfully integrate the hybrid world of public clouds, private clouds and on-premises applications (figure 1). Rather than adopting temporary stop-gap solutions, companies can use a single robust platform, designed from the ground up to deliver everything needed for cloud and on-premises integration of any complexity.

Unlike traditional choices, IBM App Connect Professional is a next-generation platform that can deliver the following differentiating capabilities:

- Complete deployment flexibility
- Complete cloud integration scenarios
- Complete connectivity
- Complete reusability

Each capability is explained in the sections that follow.

Complete deployment flexibility

The cloud integration platform is a single product that offers the following form factors for deployment:

- A multi-tenant cloud-based integration service
- A licensed version that can be installed on a customer's existing servers by using virtualization technology on premises behind the firewall or in the cloud as a private cloud-based service
- A Docker image which further enhances portability

All deployment options (figure 2) provide the same user experience for developing and managing the integrations, and users have the unmatched flexibility of seamlessly transitioning between these options. The advantage to customers is the ability to choose the right solution for their needs, rather than being limited by vendor offerings that often take a "one-size-fits-all" approach..

Complete cloud integration capabilities

IBM App Connect Professional provides the capabilities to support all key use case scenarios, in one solution:

- *Cloud data migration.* Data handling, using the platform's data cleansing and data migration capabilities, enables companies to expedite their adoption of Salesforce.com's cloud offerings. This approach to data integration enables companies to cleanse, enrich and migrate data from existing applications to Salesforce.com's cloud offerings in real time
- *Cloud data synchronization.* The platform provides connectivity, workflow and transformation features, and enabling companies to coordinate or orchestrate integration processes across multiple applications in real time. Now, Salesforce.com users can immediately view data that is hidden in other applications, minimize any duplicate entries and improve their decision making and productivity
- *Cloud data mashups.* Often information from disparate sources must be brought together and displayed within the native user interface of a single application. For example, data from multiple cloud applications can be "mashed up" in Salesforce CRM to present a single unified view, without taking the data out of one application and putting it into another

Complete connectivity

IBM App Connect Professional comes with built-in connectivity to all Salesforce.com cloud offerings. The platform offers pre-built connectors for Salesforce.com web services API and Bulk API. It also provides an out of the box connector for Salesforce Analytics Cloud, Wave Analytics platform. It provides connectivity to hundreds of cloud, packaged and proprietary on-premises applications, including ERP, CRM, databases, web services and flat-files. The platform is completely self-contained and includes everything needed to complete integrations in a single solution. This progressive approach to integration makes no distinction between local and remote applications because connectivity is established to the endpoints by using native application protocols. The advantage is that no additional adapters are required and there is nothing to install or change at the endpoints. IBM App Connect Professional also offers comprehensive support for OData standard. OData is now recognized as a key part of the connectivity ecosystem, with industry leaders like Microsoft, IBM, SAP and Salesforce (amongst many others) working together over some years to define the standard. The current iterations supported by various players provides a comprehensive set of OData capabilities and form a key part of the connectivity for the Salesforce Lightning platform. But with many of traditional data sources still beyond the reach of OData, the use of an integration provider allows final mile OData connectivity to expose enterprise data. IBM App Connect Professional users can now host an OData provider or consume data from any data source regardless of existing standard support or whether its deployed in public, private cloud or on-premises. Users connect to their existing endpoints using hundreds of pre-built application and technology connectors and are needed to perform only one additional step to convert the internal format to the OData standard.

Complete reusability

IBM App Connect Professional includes hundreds of reusable Template Integration Processes (TIPs) (figure 3) that are searchable with a single click in an online library. This online library contains templates for all of the most common cloud

Figure 3: Example of a Template Integration Process. IBM App Connect Professional includes hundreds of reusable TIPs.

integration scenarios. These templates provide a question- and answer-based wizard that walks users through a common integration scenario. For example, a TIP might ask for all of the information needed to transform an opportunity in a CRM system to an order in an ERP system. Customers and partners can create their own wizard-driven reusable templates with the point-and-click TIP Development Kit and make them instantly available to the entire user community.

IBM App Connect Professional platforms: Aligned with Salesforce.com

The ease of using hybrid integration services from IBM matches the simplicity delivered by Salesforce.com. Both eliminate the need to write any code, do not require installation or deployment of software and provide configuration capability. The benefits of this solution fit well with companies' expectations of a cloud-based application:

- *Integration in days*. IBM App Connect Professional provides the powerful combination of a "simple integration experience" for business users looking to automate how their applications talk to each other, and a "configuration-based integration" approach for shadow IT teams and integration developers who need to solve more complex problems and need powerful tooling. It comes with pre-built Connectors and TIP library that enables companies to integrate in days, instead of weeks or months
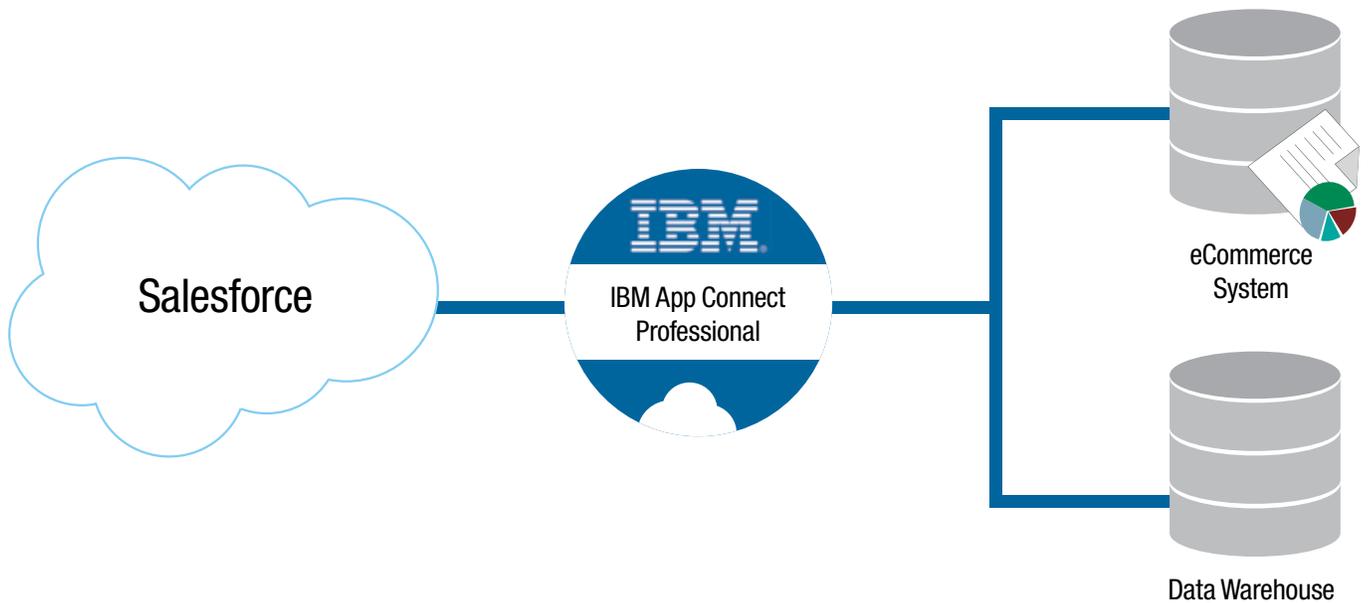
Figure 4: Salesforce.com integration with on-premises data warehouse and eCommerce systems

- *Thousands in cost savings.* The "configuration, not coding" design has helped a number of companies slash integration costs compared to traditional approaches. In addition, companies have reduced ERP licensing costs by eliminating the need for Salesforce.com users to login to back-office applications. Also due to the term licensing pricing options available, companies have slashed their upfront capital expenditure costs. IBM App Connect Professional provides flexible packaging with the most cost effective and affordable pricing options

- *Low IT impact.* IBM App Connect Professional provides completely self-contained services delivered via either an on-premises hypervisor edition or the managed SaaS offering. Neither approach requires complex co-ordination or specialized IT skills for deployment. Ongoing management and maintenance of the hypervisor or cloud-based service imposes minimal to no requirements on IT
- *Easy to change.* IBM App Connect Professional allows IT to change connectivity, revise transformations and modify workflows using point-and-click functions in a visual user interface. Easy changes enable integrations to better serve the evolving needs of the business

Example customer use cases

This section describes two customer examples using next-generation cloud integration platforms.

Example 1: Amerisource Bergen Specialty Group—Fortune 500 distributor of pharmaceutical products

Amerisource Bergen Specialty Group, a large pharmaceutical products distributor, replaced various traditional systems with Salesforce.com as their CRM application for their call center service representatives (CSRs).

The challenge was to empower all their CSRs with real-time information in Salesforce.com, enabling them to deliver a superior customer experience. They needed a solution that provided the CSRs with information about accounts payable and receivable, invoices, credit checks, order details and other data. This information existed in multiple back-office applications that had been consolidated using a data warehouse. Historically, the CSRs spent hours collecting this information by accessing multiple applications, which resulted in a significant loss of sales productivity.

The IT team's main challenge was to reduce dependency on expensive integration project personnel and shift higher skills to more strategic or innovative initiatives. Traditionally, the company relied on custom code to solve point-to-point integration problems, but found the approach to be non-scalable as their needs grew. The IT team conducted a comprehensive evaluation process and rejected proprietary on-premises ETL tools because of the coding complexity.

The IT team deployed IBM App Connect Professional to connect their SQL-based home-grown data warehouse with Salesforce in real time (figure 4). This solution is used to create a real-time 360-degree view of customers. Account, credit and sales information is now sent to Salesforce.com from the data warehouse, and orders and quotes that are created in their e-commerce system are sent in real time to the data warehouse.

The entire integration solution was delivered in just 10 days. The company has reduced its development resources, resulting in an annual cost savings of 80 percent or USD 250,000.

In addition, highly skilled resources are now assigned to innovation-oriented projects instead of integration projects. By providing this single view of customers in Salesforce.com, the company was also able to significantly improve CSR productivity.
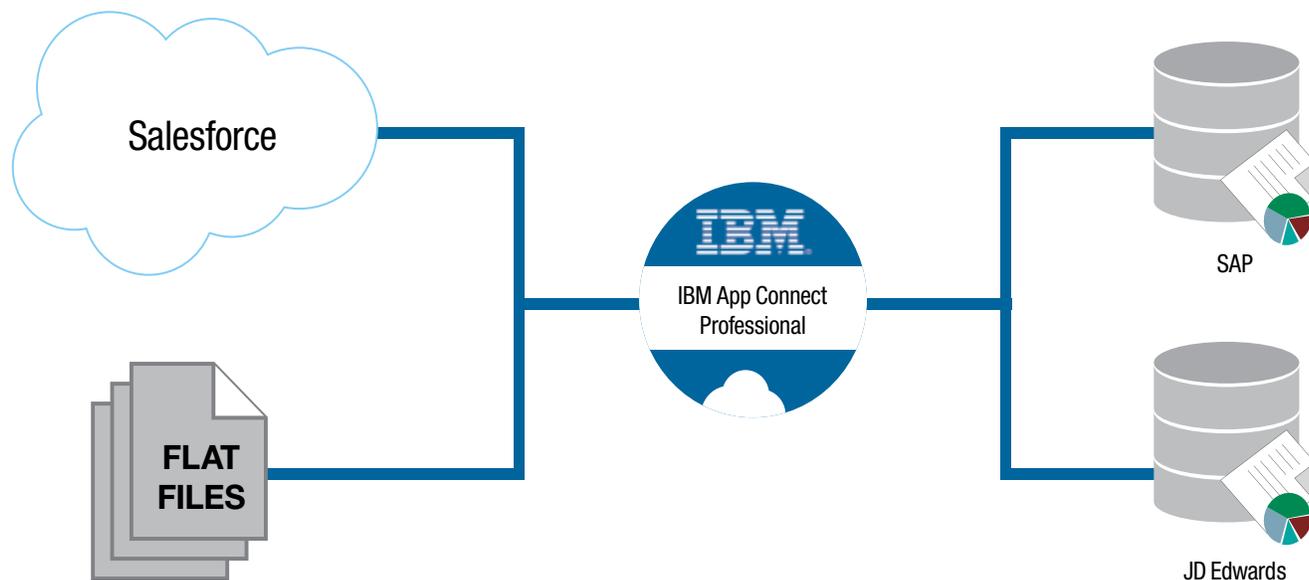
Figure 5: Salesforce.com integration with on-premises SAP and JD Edwards applications

Alere (formerly known as Inverness Medical) — A Leader in rapid point-of-care diagnostics

Alere is a USD 3 billion global diagnostic device and service provider that has a wide range of cloud and on-premises applications, including solutions from SAP and JD Edwards. They chose Salesforce.com as their CRM platform with the goal of delivering a superior customer experience.

Their diverse and disparate systems resulted in silos of information that forced their sales and technical service teams to access multiple systems for customer complaint data. They wanted to use salesforce.com as the single application to provide a seamless, 360-degree view of their customers and maximize the productivity of their sales and technical service teams.

After rejecting traditional integration methods, they chose IBM App Connect Professional (figure 5) and its "configuration, not coding" approach for real-time, bidirectional integration. Using the platform, they integrated Salesforce.com and on-premises systems including SAP, JD Edwards and flat-files. Now the technical service teams no longer have to log in and manually access the information in back-office ERP systems.

The first SAP to Salesforce.com project was completed in only 10 days, and resulted in numerous cost savings and productivity improvements. Inverness Medical (now Alere), was able to save USD 100,000 per year by eliminating ERP licenses and an additional USD 30,000 per year in integration implementation costs. By providing real-time client case data, they realized an additional USD 95,000 per year in productivity improvements.

Conclusion

Unlike traditional on-premises applications, Salesforce.com's cloud offerings provide tremendous benefits, including rapid implementation, ease of use, low IT requirements, subscription pricing, flexibility and scalability. With the increasing adoption of cloud-based applications, integrating Salesforce.com's cloud offerings and back-end applications helps companies realize the full potential of their solutions.

Back-end systems, in which companies have made significant investments over time, provide key differentiation advantages. It is not practical to replicate this time and money investment in a new application. It is far simpler to provide a way for Salesforce.com's cloud offerings to access the information in existing backend systems and further leverage the investments made in those systems.

It is clear that IT environments have become hybrid and include a mix of cloud-based and on-premises applications. Different companies will select various combinations of these systems to maintain true differentiation and be responsive to the needs of the business.

To realize the full benefit of cloud-based applications, integration must be dramatically simplified. Companies need a solution that can run anywhere, connect applications anywhere, be managed from anywhere, and require no specialist integration skills or IT infrastructure. These solutions must be easily configurable, flexible, and scalable—which means no coding. And, the integration solution must implement projects within days, not weeks or months.

Fortunately, IBM App Connect Professional provides these benefits today. Besides the "configuration-based approach" to integration, it also provides "business-friendly tooling" for a business user who may not have the same skill sets as IT users. By taking advantage of the simplicity and the comprehensiveness of the hybrid integration platform from IBM, companies can add significant value to cloud integration projects and obtain the full benefit of Salesforce.com in just days.

For more information on these next-generation cloud integration platforms, please visit
ibm.com/software/products/en/ibm-app-connect.