



Integrating enterprise applications in the cloud

By Ralph Hibbs and Celia Brown

When transitioning to cloud-based systems, organizations need an easy, affordable way to share data among on-premise, cloud-based, and software-as-a-service (SaaS) applications. The Dell Boomi AtomSphere® integration platform streamlines the process.



Keeping development and support teams in sync

Take a look at Dell Boomi AtomSphere in action to see how quickly and easily integration processes between RightNow CX and Atlassian Jira can be created and utilized.

boomi.com/rightnowdemo

Efficient information sharing among all enterprise applications, regardless of where they reside, helps to ensure that critical data is current, consistent, and available when and where people need it. Organizations that are primed to exchange information across their core systems, both on premise and in the cloud, create a strong foundation for a positive customer experience. And they are prepared to develop strategic opportunities as the occasions arise. By integrating software-as-a-service (SaaS), platform-as-a service (PaaS), social networking, and Web service-based on-premise applications, organizations can add value to long-term customer relationships, increase opportunities to sell related or enhanced products or services, enhance visibility into customer concerns, and pinpoint unmet demand and opportunities for improvement.

Today, many of the key systems that run critical business processes—including customer care, billing, and financial reporting—are moving into the cloud and becoming available through SaaS offerings. Cloud computing enhances business agility and IT flexibility, and offers several important benefits:

- **Cost savings:** Applications hosted in the cloud reduce the need for significant up-front investments in data center infrastructure to support the software. And because many SaaS offerings are priced using a utility model, organizations pay as they go, based on actual usage, rather than paying large up-front licensing fees.

- **Reduced maintenance and overhead:** Upgrades, patches, and storage provisioning are handled by the cloud service provider, freeing up in-house IT resources to focus on projects that advance strategic business and organizational goals.
- **Scalability:** The cloud service provider handles dynamic provisioning of computing resources transparently. As a result, any number of end users can work simultaneously with a cloud-based application without requiring an organization's IT department to design systems for peak loads.

Understanding the challenges of integrating systems

In contrast to the ease of implementation and setup SaaS applications offer, integrating legacy applications with cloud-based services can be a complex undertaking. Data integration is often a significant barrier to SaaS adoption. However, the integration challenge is not caused by SaaS technology itself, but rather by the difficulty of integrating applications using conventional integration tools and legacy technologies.

Many IT departments attempt to manually code integrations, but these approaches are often not sustainable. Custom coding is resource intensive, costly, and not scalable to accommodate the needs of a growing business. Software integration solutions exist, but they must be deployed on servers in the data center—which can be costly and require additional hardware and ongoing maintenance.



Saveology.com: A study in savings

Saveology.com—a leading comparison-shopping site focused on home services such as cable, Internet, and telecommunications—relies on receiving information from a variety of external partners to keep its business running. However, an assortment of file formats and transfer protocols created frequent processing errors and multiple points of failure.

The company chose Boomi to integrate its provider integrations with salesforce.com. As a result, Saveology.com automated key business processes and maximized its cash collections and cash flow. By helping to reduce the need for specialized development resources and extensive ongoing maintenance, the organization was also able to save money by redirecting IT resources to core competencies.

Frequently, the cost and complexity associated with integration negates the potential cost savings of utilizing SaaS business applications. However, a true cloud integration platform addresses this challenge by enabling organizations to unite key applications—regardless of whether the applications are hosted on premise, in a private cloud, or in a public cloud hosted by a third-party provider.

Opening up opportunities to connect through the cloud

Dell acquired Boomi in November 2010 to help organizations boost IT flexibility and business agility, which can enhance enterprise-wide productivity by connecting applications to each other. By giving organizations the tools they need to easily and affordably connect both their cloud and on-premise applications (see Figure 1), the Boomi AtomSphere integration platform enables IT departments to complete integration in a matter of days or weeks—without deploying software.

For example, when a sales representative completes an order in a customer relationship management (CRM) application, such as Sales Cloud from salesforce.com, the information must be transferred to the organization's financial or enterprise resource planning (ERP) system. Sales executives in the field can see a customer's financial data if the data in their CRM and ERP applications are synchronized. Some organizations may also tie in the customer

support system so that when customers call in, the service representative can see whether they are current with their payments before providing support. The organization can also reach out to nonpayers to discover problems and help improve service.

The Dell Boomi platform provides the tools IT organizations need to map data fields and automate the synchronization of data between applications. For example, organizations can use the Boomi platform to automate sending customers' payment status back to the CRM system to provide visibility to sales executives.

Boomi integration tools are designed to help business analysts and administrators

perform three primary functions: building, deploying, and managing integrations. Using the AtomSphere library of pre-built connectors and process maps contributed by their experienced user community, business analysts or administrators can design integration processes visually using a drag-and-drop interface (see Figure 2), and then load them for execution into a lightweight, dynamic runtime engine called an Atom. Atoms contain the components required to execute an integration process.

Data mapping—typically the most time-consuming step when creating integrations—can be significantly accelerated thanks to the Boomi Suggest™ feature. This innovative

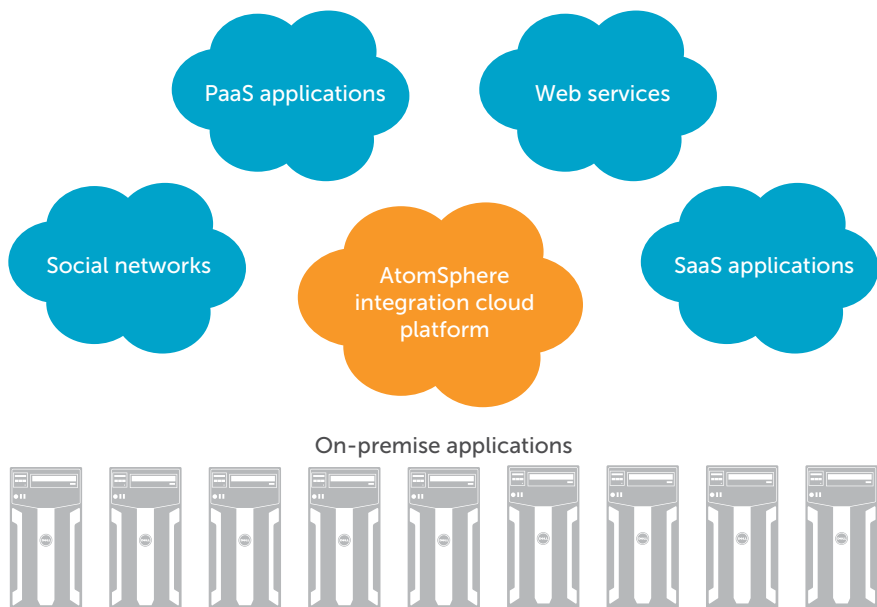


Figure 1. Connecting applications both behind the enterprise firewall and in public clouds

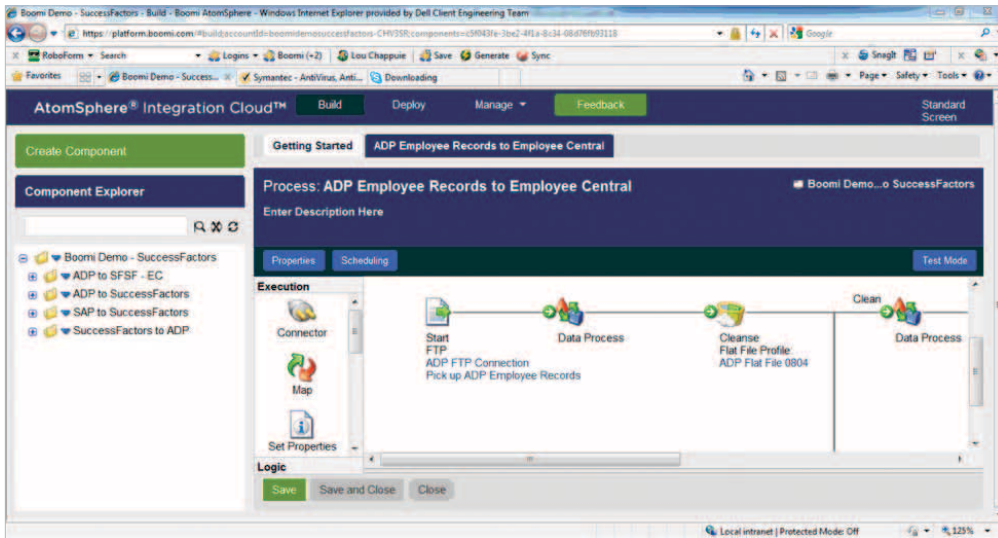


Figure 2. Enabling drag-and-drop data mapping in a visual representation of the data model for each application

data mapping wizard significantly automates the mapping of data fields between applications, enabling business analysts and administrators to configure data mappings easily based on confidence-level field mapping.

Business analysts or administrators can also use Boomi AtomSphere to easily perform some data cleansing and minor data transformation. For example, they can merge first and last names into a single field if the target application has only one field for names, and then test the integration in a sandbox, package the integration, and define where it runs.

Boomi Atoms also allow integration processes to run wherever needed and as many times as needed, which helps support unlimited scalability. Atoms can contain one or more comprehensive, end-to-end integration processes and can be run securely on virtually any server. They can be deployed in the cloud for SaaS-to-SaaS integration—for example, the Boomi data center or a third-party data center such as Amazon—or behind an organization's firewall for SaaS-to-on-premise integration.

Boomi AtomSphere connectors go through application-specific security reviews where applicable. All communication between a Boomi Atom on-site and the Boomi data center is sent over an HTTP-over-SSL (HTTPS) channel with 128-bit encryption. For Atoms deployed

behind the firewall, only status and tracking information—but never application data—is sent to Boomi AtomSphere.

IT staff can monitor and maintain the status of the deployed Atoms, integration processes, and trading partners—regardless of location—using a feature-rich, Web-based dashboard. This dashboard allows administrators to monitor the status and health of all the organization's Atoms and integration processes, whether they are deployed in the cloud or on premises. Detailed logs show which processes ran and when, how long they took to run, their result, and how many objects were processed. And administrators can subscribe to alerts through RSS feeds for proactive notification of failures. (For information on how one organization leveraged cloud integration for a cash collection business model, see the sidebar, "Saveology.com: A study in savings.")

Offering simplified power and scalability

Through its innovative visual configuration interface, the Dell Boomi AtomSphere integration platform gives organizations the power to develop integrations quickly—typically in days or weeks rather than months. Dell Boomi helps lock in cost-effective scalability by delivering the tools enterprises need to connect both their cloud and on-premises applications simply and efficiently. **PS**

Authors

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