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# White Paper

# Enterprise Enabler® and Salesforce.com

*Incorporating on-premise data without moving it to the cloud*

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# Enterprise Enabler® and Salesforce.com

***Incorporate on-premise data virtually, without it leaving your systems***

Enterprise Enabler supports a substantially more secure and flexible model than other integration platforms that offer SaaS connectivity. By allowing data to remain securely behind your firewall, yet making it virtually available on your Salesforce.com screen, Enterprise Enabler helps you overcome the most common concern of many organizations with respect to subscribing figuratively and literally to SaaS.

***When You Simply Cannot Have Your Data in the Cloud***

Salesforce.com is a compelling addition to any company's suite of business functionality, but the risk of copying your customers' proprietary data to the cloud can be prohibitive, and often stretches the limits of regulatory compliance. Stone Bond's Enterprise Enabler federates and virtualizes your data and presents it aligned and side-by-side with the related SFDC data. This means that Salesforce.com can become a "corporate portal" for many of your employees, giving a window into data from all the systems they need to perform their responsibilities.

In fact, the connectivity can be easily implemented so that your Salesforce users can actually update the on-premise data that they have individual authority to change.

***Typical Integration Models with SaaS like Salesforce***

In the absence of Enterprise Enabler, the choices are limited, and all have a downside that may be the reason you are slow to adopt SaaS. The more important the function of the SaaS is to your business, not only is there more risk associated with data in the Cloud, but also there is increased need to load, synchronize, and replicate between on-premise and Cloud data.

A. *The Cloud application is treated as a completely stand-alone tool.* This model is largely a myth, since when you get down to the reality, unless you are an individual or a very small company without any software, you will need to pre-populate the SaaS with some amount of data from your existing systems in order to configure it to be meaningful. Once you are up and running, assuming this is an application that is important to your business, you will need to get data back from it for accounting, logistics, or perhaps business intelligence. Of course, that means some kind of integration must be done between your on-premise and you hosted data.

B. *Load your existing data and go.* First of all, this is never as easy as it seems, unless again, you are an individual or a very small company. Usually the SaaS offering includes some snazzy utilities where you simply point to your source. Assuming it's a spreadsheet, CSV file or SQL database; assuming the data is in the right format; assuming the tag names or identifiers match what's needed in the SaaS application; assuming the units of measure are appropriate…. In reality, the data is most likely in several different places, which means you will need to create a spreadsheet, CSV file, or SQL table and somehow get the data from all those places, align it appropriately, and populate the new data store. THEN you can use the snazzy tool that is a mere click and a zap, and the data is loaded and your SaaS application is ready to go. But oops, what happens if your old on-premise systems still generate new data – you have to load again and again….

C. *Synchronize and replicate.* This is a more realistic model, since you are likely to need to bring SaaS-generated data back into your systems as well as upload new data from your backend systems. To accomplish this, you need a more sophisticated manner of combining data from multiple systems, aligning it, etc., and then downloading, disaggregating, transforming, and getting the data back to where you need it for in-house systems. Most companies handle this with some sort of staging database or data warehouse and periodic synchronization. Latency can be a big concern here. Clearly, in this case you are embarking on a substantial project to support SaaS, which is supposed to be the really easy, inexpensive answer.

D. *It's just for BI.* A huge number of SaaS applications are emerging for Business Intelligence and analytics. All they need is the data, which means the same issues surrounding designing the right data models, loading them, and keeping the data current. The tools are usually very easy to use and provide valuable insight. It's just that same devil in the data loading.

E. *Other mitigating techniques.* Salesforce.com acquired Navajo technology, which encrypts data as it is transferred between your company and the Salesforce database in the Cloud. The data still ends up in the cloud.

## Challenges (Issues) with these Models

- Risk due to proprietary and/or on-premise data stored in the Cloud

- Lots of moving parts

- Federation across data sources is an elaborate exercise usually requiring a staging database or file.

- Large implementation projects to put data handling processes in place

- Latency of data for Salesforce users as well as users of on-premise systems

## Characteristics of the Enterprise Enabler Model

- On-premise data is **not** copied or moved from its source, but made available "on-demand" in a virtual view.

  For example, Customer phone numbers remain in the ERP system, but are visible on the Salesforce screen.

- When a user opens or refreshes a screen in Salesforce, the relevant on-premise data is accessed live from its source and presented alongside data that is stored in the Salesforce database.

- Data is federated as needed, pulled directly from multiple sources and aggregated without staging.

  For example, Customer name may come from SAP, and the products they have purchased my come from a separate inventory management system. When the Salesforce user opens the window, both pieces of data are accessed from the sources, transformed and aligned appropriately, and presented on the screen, aligned also with the data stored in Salesforce. The on-premise data is never copied or moved.

- Data latency is a moot point, since data is neither staged nor copied or moved.

- Security can be defined so that an end user of Salesforce can only access (see) the on-premise data for which he has authorization in the on-premise source system.

- Leverage Navajo security if desired.

- Bi-directional integration configuration can be set so that the end user of Salesforce not only sees the relevant and authorized on-premise data, but also can update it if he is authorized in the source system to do so.

*Enterprise Enabler – Salesforce Integration Model*

The diagrams below depict the data residence and flow where on-premise data is required in a Salesforce.com implementation. The first is the common solution where a copy of the on-premise data is made and resides on the Salesforce cloud. This model simply is not acceptable to many companies. For those that do implement it, without Enterprise Enabler there is a huge overhead to develop and maintain the integration and synchronization.
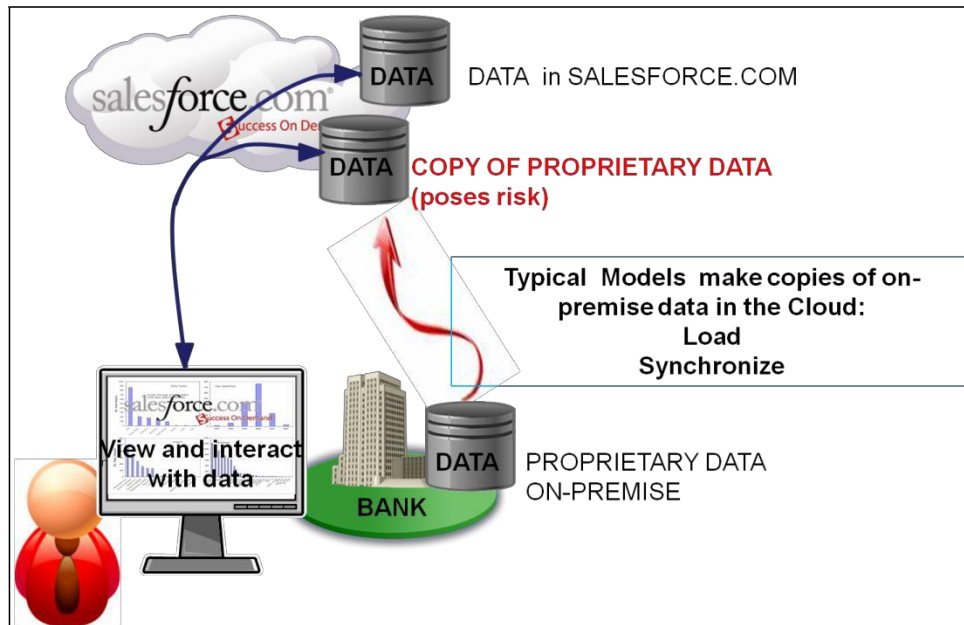


The second diagram, below, depicts the preferred Enterprise Enabler (EE) implementation in which the on-premise data remains on-premise, where it belongs. Enterprise Enabler accesses, federates and delivers a data view virtually to the Salesforce page.
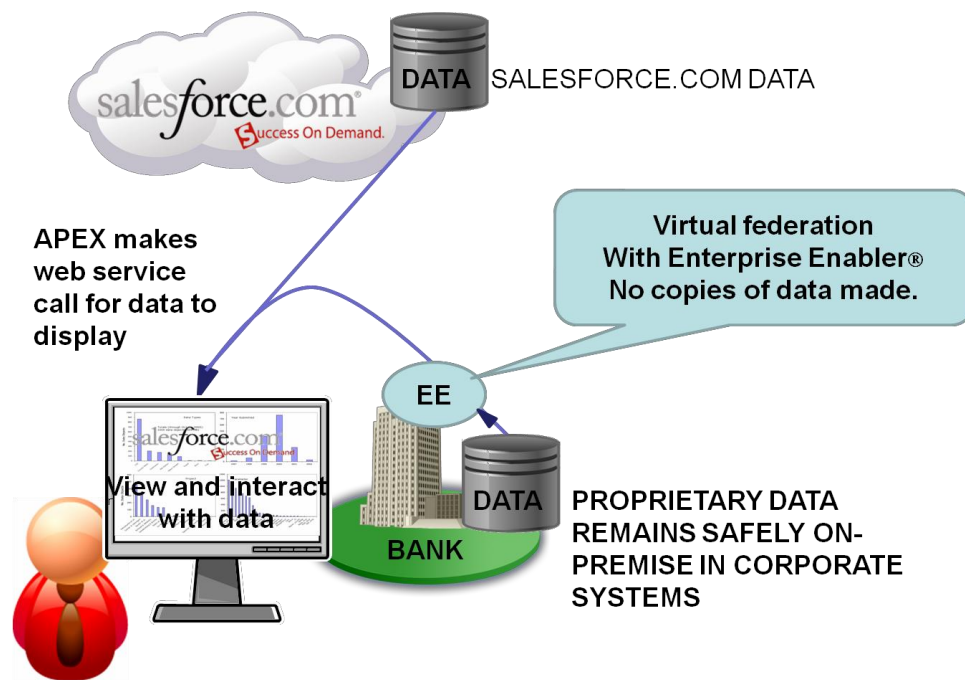
*Implementing the Enterprise Enabler (EE) /Salesforce Model*

Enterprise Enabler is an Integrated Develop Environment that supports rapid development, testing, deployment, and monitoring of integration solutions without leaving the environment. The ease of use means you can leverage data analyst or .Net programmers as opposed to requiring specialized skills. With built-in data quality, monitoring, logging, and notifications, the architecture scales up with clustering or down for a single project or interface.

Within a few minutes, Stone Bond's Enterprise Enabler can be configured, generating metadata that virtualizes and aligns backend data with Salesforce data, and packages it as a web service compliant with Salesforce. Optionally, this would be a bi-directional (Read/Write) connection.

Salesforce.com offers the capability of modifying its screens, so anyone who is conversant in doing that can modify a screen to populate the data from an external source. One option would be to configure it to call a web service when the screen is presented or refreshed.

When an end user brings up the Salesforce page, Salesforce calls the web service, and Enterprise Enabler accesses the on-premise data live, aligns it with the relevant Salesforce data, and sends it to Salesforce screen. With the bi-directional option, data can be

entered or corrected on the screen to automatically update not only the Salesforce data, but also the on-premise data, assuming the end user has proper permissions to write back to those systems.

Below is a screen shot from a sample integration map, where data from SAP and two SQL data bases are mapped to a virtual entity that will be displayed in a Salesforce window.
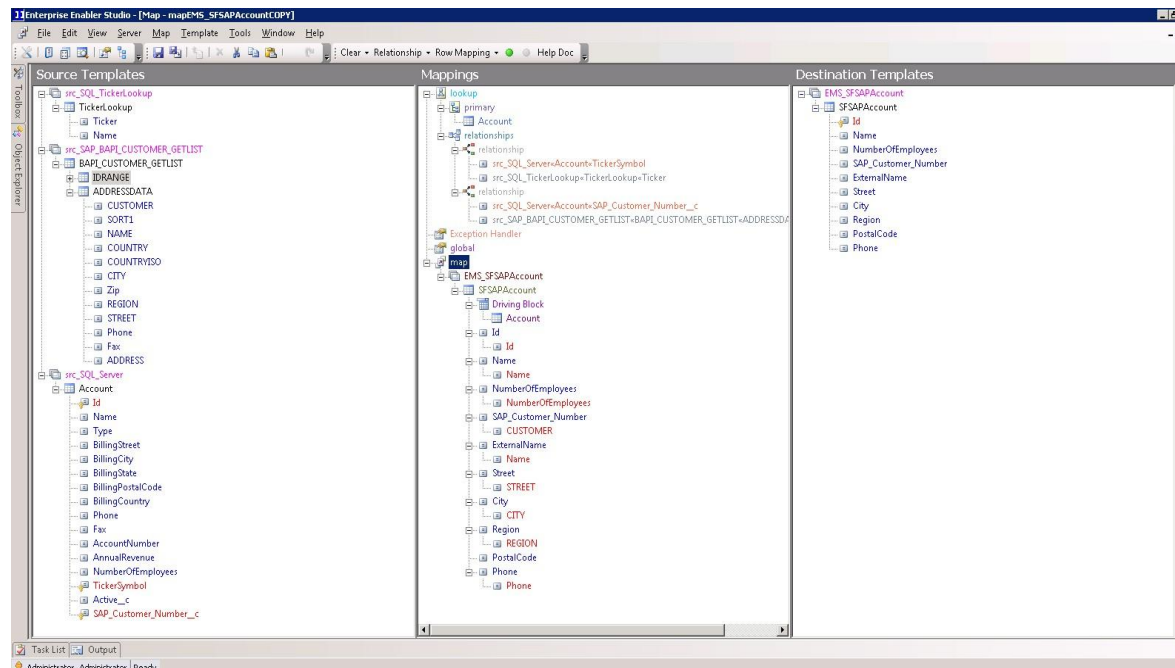


The screen shot below shows Enterprise Enabler EMS's ("Enterprise Master Service") generation of the web service that Salesforce will call to pull the data to a screen when an end user opens or refreshes the window. Simply select the map and indicate if it's bi-directional, give it a name, any you you're off and running. (Note that the same virtual entity can be deployed also to SharePoint or as an ADO.Net driver.)
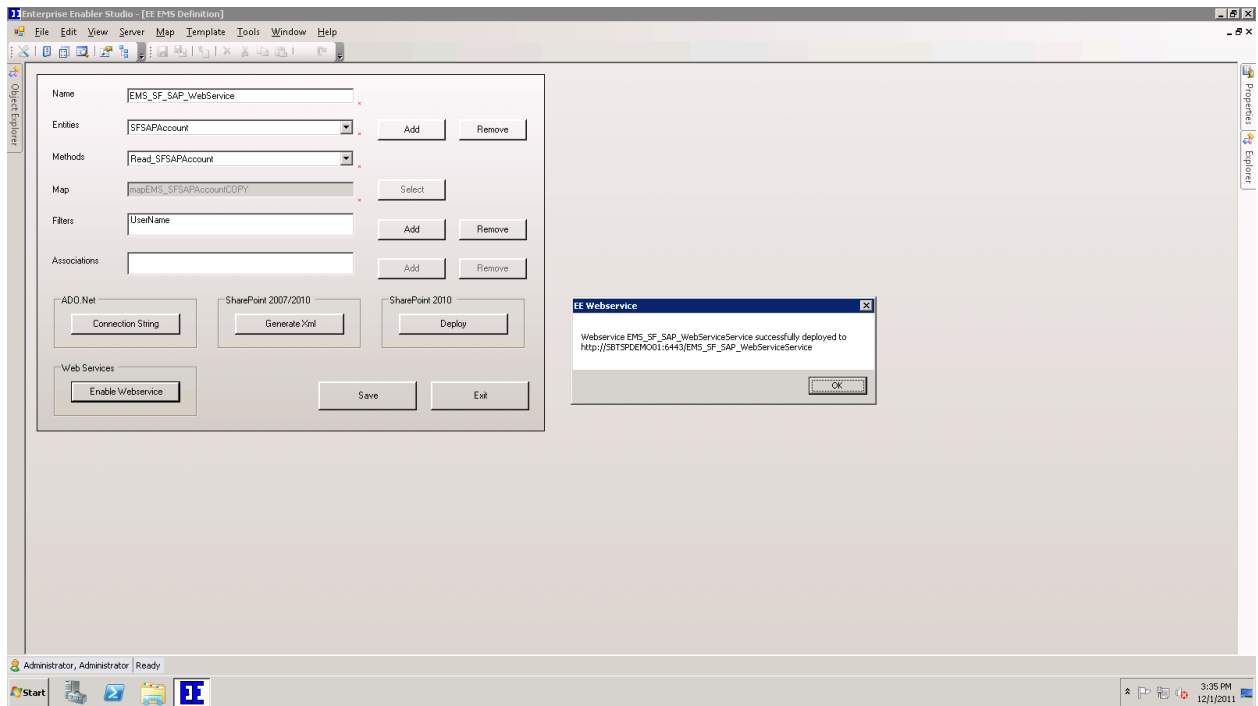
And finally, below is the detail screen that shows the virtual view in SFDC.
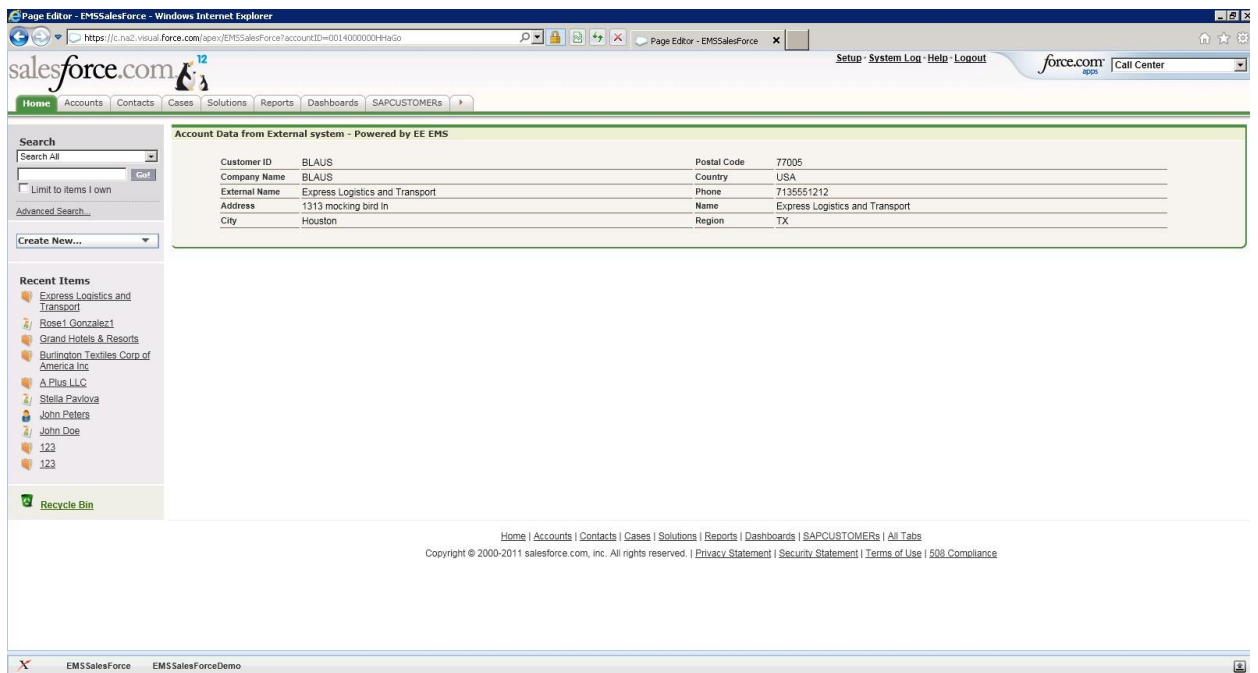


Companies have spent millions of dollars over the last few years trying to do this. With Enterprise Enabler, a solution was configured in three weeks to incorporate this Salesforce connectivity. Now it is available off-the-shelf so that anyone can implement it in a few minutes or at most a day.

- Proprietary data never leaves the company

- Rapid implementation, and therefore time-to-value

- User always gets a refresh directly from the original on-premise source.

- Incorporate other SaaS sources also in same manner, including data from Social Media

- Users see backend data side-by-side and aligned with Salesforce data

- No inherent latency on updates

- No need to stage data for transformation, federation, and alignment

- No need to synchronize/replicate the data

- Easy maintenance of solution

### *Enterprise Enabler and More Classic Models*

Enterprise Enabler streamlines the implementation and maintenance of all integration models. With respect to SaaS integration, we typically see customers wanting to:

- ***Load an initial set of data to the cloud.*** Where data comes from more than one source, and needs to be aligned, Enterprise Enabler creates cross-application virtual relationships so that there is no need to build a staging database to effect the joins.

- ***Synchronize on-premise and Cloud data.*** These same efficiencies can be leveraged for synchronization, either event triggered or scheduled.

- ***Data quality and validation*** can be built into the data flows, with configurable exception handling and notifications.

- ***Data workflow logic.*** Enterprise Enabler includes a full and extensible composite application builder, which can be configured without programming to handle complex data workflow logic behind the scenes.

**For More Information**

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