

A JITTERBIT WHITE PAPER

Salesforce Integration Best Practices Guide



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Introduction: Where We Are Coming From

Jitterbit has a long-standing business relationship with Salesforce. As a matter of fact, Salesforce is one of the early investors in our company. Over the years, and after working with thousands of clients, we have moved literally petabytes of data into and out of Salesforce. In that time, we have developed some insights into how to make the process faster, less time consuming, and more efficient. We are proud to be able to share these tips and tricks and best practices with you. Naturally, we are also proud of our products, and think there are many reasons for you to consider adopting them. To that end, we have included some information about Jitterbit's product line at the end of this white paper. But first, let's explain how we developed this expertise.

Jitterbit's History with Salesforce

Jitterbit was an early adopter of Salesforce. In fact, we were one of the first twenty products on the AppExchange. Curious about, what at the time, was a new approach to applications, we analyzed our customer's Salesforce data usage patterns. Based on that research, we concluded that a majority of our users were also trying to move data to or from Salesforce. We then worked closely with Salesforce product managers to create a new software solution, called **Data Loader**, to address the needs of all Salesforce users.

To seed the market, Jitterbit launched Data Loader as a freemium product on the AppExchange. Since then, both the freemium and paid version of Jitterbit's Harmony enterprise iPaaS product have been utilized tens of thousands of times.

Our company has grown and we have employees around the world, including in NA, EMEA, LATAM and APAC. The Jitterbit Harmony product has received recognition as an industry leader from Gartner, Forrester, and G2. The Jitterbit services organization has received a Stevie award for its outstanding customer service.

Tips and Tricks

The following tips and tricks will work any time you are loading or extracting data from Salesforce. The tips should be straightforward and self-explanatory, but if you have any questions, please drop us a line at info@jitterbit.com.

Clean up the Salesforce user account

Start by creating an API-only profile and ensure that the profile associated to this account doesn't have UI access. To get the best performance when loading data, make sure the API-only account bypasses all workflow rules, process builders, flows, validation rules, and triggers during data migrations. This may not sit well with all Salesforce admins since there is a risk of loading bad data and compromising data integrity. This trick should only be used when the data being loaded has been checked and rechecked for accuracy.

Avoid bi-directional master data integration

Mapping out bi-directional flow between two applications can be very complex and challenging. For example, an Account in Salesforce and a Customer in SAP are very different, since Salesforce's data model is much simpler than SAP's. To make a bi-directional customer master work requires a lot of customization in Salesforce to handle SAP's far more complex data structure. A tip is to make one of them the system-of-record rather than trying to maintain two customer masters.

Carefully consider the number of triggers with Salesforce objects

We often see situations where triggers harm performance when updating records in Salesforce using the standard API request. Since the default is only 200 records in a batch, if there are too many triggers, the process will time out before triggers finish their work. In these cases, we are forced to send smaller batches of data, sometimes as few as one-at-a-time. Not only is it slow, but also it does not scale well.

Avoid using the CREATE command in large migrations

Be careful using the CREATE in a large data migration as this can slow down the process because Salesforce must translate external IDs to internal IDs.

Create two branches during testing

Another tip we recommend is to modify any transformation to include a branch for successful records in addition to failed records, so you can see both results in the activities log during testing.

Tips and Tricks

Let the Salesforce Admin determine which records need to be synced

If the Salesforce Admin can change the business logic without needing to modify the integration logic, they will be able to make changes on the fly without requiring outside help. Our tip to accomplish this is make use of three fields: the Sync To [target name] (checkbox) field, the Last Sync Datetime, and Last Sync Message field. Jitterbit queries the object for the Sync To field and checks to see if the checkbox is set to "True". If it is true, Jitterbit will then sync the record and write back the Last Sync Datetime and Last Sync Message fields. This allows the Salesforce Admin to determine which records have synced and also manually force records to sync, as needed.

Leverage Salesforce Object Query Language (SOQL) to get child objects

Another trick is to use relational queries to reduce the number of API calls for certain operations such as identifying parent-child relationships between objects. Jitterbit's relational queries can have up to three levels of related objects.

Build in recoverability

A trick is to design integrations to restart processing when endpoints or agents become active automatically. This avoids a lot of manual checking.

Best Practices

The following best practices are not specific to Salesforce projects, but can be used on any software development project.

Crawl before you walk, walk before you run

Prototype and create proofs of concepts before full systems. Figure out what works first, build skills, and then accelerate the effort.

Put points on the board quickly

Use incremental development rather than a big bang approach to rolling out functionality. This will allow you to gain credibility with your management and end users if they see some early success.

Don't over promise

Don't underestimate the amount of time a project will take from start to finish by only looking at the implementation time.

Take geography into account

Don't underestimate the differences in usage and adoption across different geographies. Even the same Salesforce instance can be used very differently in different countries.

Take advantage of training when you can

We offer Jitterbit University, an online learning management system designed to build proficiency with Jitterbit's Harmony API Integration Platform. Hands-on and lecture-based trainings are available for new users, advanced users, IT operations staff, and developers. There is even a course for "Connecting to Salesforce", which is designed to give a detailed overview of the different ways Jitterbit's Harmony platform can integrate with Salesforce. This course covers the various Jitterbit Connect Salesforce Wizards, Jitterbit Script Salesforce functions, and much more.

Jitterbit University is self-paced so that you can complete training courses at your leisure. Some courses have certifications available.

Best Practices

Use pre-packaged integrations when you can

Jitterbit provides Process Templates and Integration Recipes.

An Integration Recipe (a.k.a. “Recipe”) is a single pre-built integration project that moves data in one direction between like objects across two applications or systems. Jitterbit’s Harmony Citizen Integrator is our point and click web application for technical and non-technical users alike to quickly deploy and customize integrations using pre-built recipes. A recipe provides a step-by-step guide to complete integrations quickly and easily. The Citizen Integrator includes hundreds of pre-built recipes with more being built all the time.

A Process Template is a group of pre-built integration projects that accelerates the execution of a specific business process using numerous objects across multiple applications or systems. It is designed to reduce time to deployment by 50-80% and can be self-implemented, delivered by Jitterbit Professional Services, or by an implementation partner.

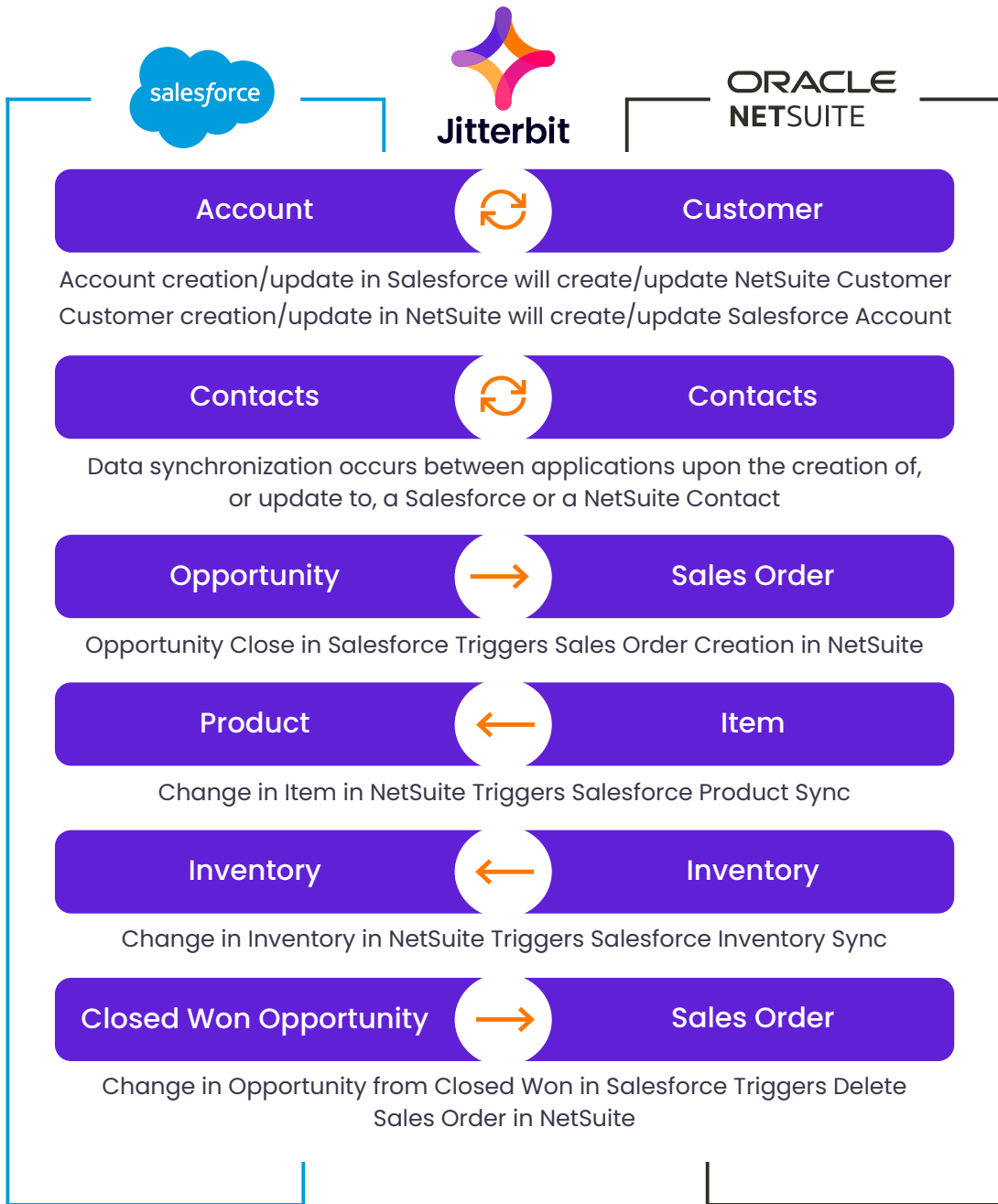
Both Integration Recipes and Process Templates contain pre-built data mappings and workflows to enable a specific integration between two systems. Our customers have typically connected Salesforce objects such as Account, Contacts, Opportunity, Product, Inventory, etc. with their equivalent objects in other on-premises or SaaS applications. They jumpstart the integration process so that you don’t have to build everything from scratch. However, many implementations have custom fields and unique needs and may require some additional customization.



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Sample of Salesforce Process Templates

Here is an example of the pre-built integrations for one of our templates (e.g. Opportunity to Order between Salesforce and NetSuite):



Sample of Jitterbit's Salesforce Recipes

Here are a few of our popular Salesforce Recipes. Visit the [Jitterbit Marketplace](#) to see a full list of available templates and recipes.

Source	Target	Jitterpak	Description
Autodesk	Salesforce	Autodesk Fusion Products to Salesforce Products (Sync)	Synchronize Autodesk Fusion Lifecycle Products to Salesforce Products
Cherwell	Salesforce	Cherwell Customers to Salesforce Accounts (Migrate)	Migrate Cherwell Customers to Salesforce Accounts
Magento	Salesforce	Magento Categories to Salesforce Pricebooks (Migrate)	Migrates Categories from Magento 2 to Salesforce as Pricebooks
Mailchimp	Salesforce	Mailchimp Subscribers to Salesforce Leads (Migrate)	Migrate Mailchimp Subscribers to Salesforce Leads
NetSuite	Salesforce	NetSuite Customer to Salesforce Account (Migrate)	Migrate NetSuite Customer to Salesforce Account
Slack	Salesforce	Slack Messages to Salesforce Feed Items (Sync)	Synchronizes a Slack channel to a Salesforce Chatter group. In other words, synchronizes Slack messages to Salesforce feed items.
Salesforce	ServiceNow	Salesforce Accounts to ServiceNow Companies	Extracts Accounts from Salesforce and upserts them to ServiceNow as Companies. Salesforce must have an Account External ID field.
Salesforce	Shopify	Salesforce Products to Shopify Products (Migrate)	Extracts Products from Salesforce and upserts them to Shopify as Products
Salesforce	Zendesk	Salesforce Tickets to Zendesk Tickets	Syncs Tickets from Salesforce and upserts them to Zendesk

Typical Salesforce Integration Use Cases

We have seen over the years that our users have connected the following endpoints to and from Salesforce CRM, among others:

- ✓ Amazon Marketplace
- ✓ BigCommerce
- ✓ Database
- ✓ Ellucian Banner or Colleague
- ✓ Epicor
- ✓ Fileshare
- ✓ FTP
- ✓ HTTP
- ✓ Marketo
- ✓ Microsoft Dynamics
- ✓ Oracle (eBusiness Suite, NetSuite, or PeopleSoft)
- ✓ Sage
- ✓ Salesforce (Marketing Cloud, Commerce Cloud, Service Cloud, or Einstein Analytics)
- ✓ SAP
- ✓ ServiceMax
- ✓ ServiceNow
- ✓ Shopify
- ✓ Workday
- ✓ Zendesk

We have proven expertise connecting Salesforce to the above endpoints, but we have also helped organizations connect Salesforce to many other endpoints as well. [Contact us](#) to discuss your specific use case and learn more on how we can help you.

Top Companies Rely on Jitterbit to Drive Innovation

Thousands of Salesforce customers across various industries use our product every day. Here are a few of the companies that have gotten a lot of value from Jitterbit.



Jitterbit's Harmony API Integration Platform

Connect your operations with a single platform. Jitterbit's Harmony is more than just an Integration Platform as a Service (iPaaS). It lets you easily integrate systems, create new applications, and automate workflows to build new solutions and efficiencies. The Harmony platform is comprised of the following applications.



Cloud Studio

Create workflows with a drag-and-drop interface for low-code system integration. With an easy-to-use user interface, anyone can create and design system integration projects and orchestrate critical business processes. It's a powerful, efficient tool for accelerating your business and driving hyperautomation.



API Manager

API Manager is the easiest way to manage your API's lifecycle in a single developer-friendly platform. Rapidly create and manage APIs through an intuitive interface, expose APIs via enterprise-scale API Gateways, and empower developers to discover and consume APIs. You can manage the complete API lifecycle with security control and rich user authentication from any device.



App Builder

With our low-code application development tool, your organization can rapidly build, deploy, and maintain web and mobile-based applications, extending development beyond IT and into the hands of business technologists.



Management Console

Control, monitor, and manage all your integration projects in one place. With a centralized view, Management Console lets administrators manage integration projects, define integration project lifecycles, and enforce security and access control rights for all integrations across the enterprise.



Marketplace

Access hundreds of pre-built recipes, process templates, and connectors to create and automate new workflows quickly and easily. With 400+ pre-built integrations, speed the execution of your integration projects for a faster time to value.



Data Loader

Data Loader is a freemium data migration tool that enables Salesforce administrators to quickly and easily automate the import and export of data between flat files, databases, and Salesforce.

To learn more, visit us at jitterbit.com/salesforce/ or contact us at jitterbit.com/contact



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