

Integrating Drupal and Salesforce for Every Budget

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MESSAGE AGENCY

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Introduction

Drupal is a powerful tool on its own, but when it is paired with a robust contact relationship management (CRM) solution like Salesforce, it can have an exponential impact on how well an organization tracks users, transactions, and interactions. A free open-source web solution coupled with up to 10 free Salesforce licenses for nonprofits, this combination can also provide tremendous value. It doesn't always have to be a complicated or expensive endeavor, either, and a variety of approaches can provide a solution for nearly everyone and every case.

There are a range of strategies for integrating Drupal and Salesforce—from self-service Salesforce Web-to-Lead forms, to the use of third-party form providers, to bi-directional synchronization through the Drupal Salesforce Suite modules. In this report, we will help you think through a strategy that helps you decide what works best for your purpose and budget, whether it's DIY or requires a developer.





What will I learn?

To help you evaluate options, the report provides a survey of approaches for getting data from your Drupal website into Salesforce. There are many methods for achieving this goal, but we have chosen to focus on options for nonprofits who have a Drupal website or want to build one. (For example, we will not cover Force.com, Salesforce native applications, or Visual Force development.)

In the end, the report should help you be:

- **More knowledgeable about the range of options for sharing data across Drupal and Salesforce.**
- **Equipped with practical steps to do some of this yourself.**
- **Better prepared to make an informed decision about how and when to work with a developer.**

Why do we know what we're talking about?

Message Agency has been integrating Drupal and Salesforce for nonprofit organizations since 2007, when we created a custom Drupal 6 integration for the Greater Philadelphia Cultural Alliance, a major membership-based regional arts organization in Philadelphia. That first site leveraged Salesforce to let organizational members manage their relationship with the Alliance, renewing and paying for their memberships online, adding or retiring staff, posting open positions to the online job bank, and completing a host of other tasks. All of the data that organizations posted was passed to Salesforce, and updates made by staff in Salesforce were also passed back to Drupal, as they had a direct impact on the end-users' experience of the site. This bi-directional synchronization of data was key to delivering back-office efficiencies in how the Alliance managed its relationship with members.

We used the initial code written for the Alliance to create the Salesforce Suite and contributed it back to the Drupal community. The Salesforce Suite is a set of modules that help administrators and developers map content types in Drupal with any object in Salesforce (contacts, organization, opportunities, and campaigns, for example). This is the most sophisticated approach for passing data back and forth between Drupal and Salesforce, but it's only one of the possible choices. We have used them all to achieve dozens of integrations over the intervening decade and share our direct experience with these approaches to help you make sense of the available options.

What does "Integration" mean?

"Integration" can be a confusing term, as there are many ways to move data from a website to another application. For the purposes of this report, we cover three different approaches:

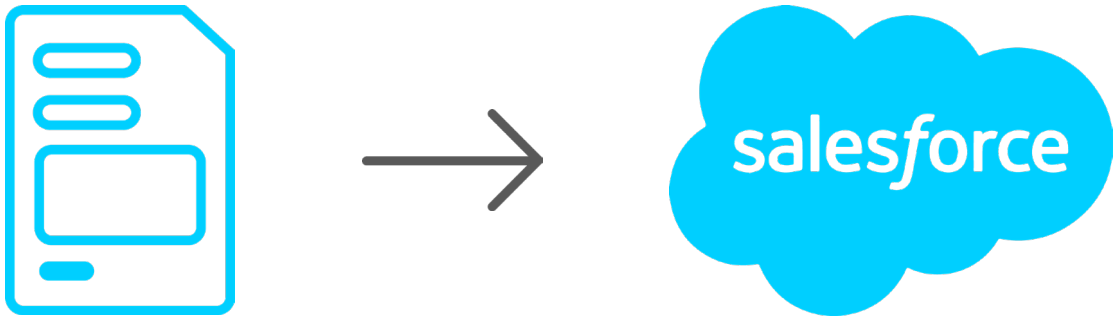
1. Simple web forms (Web-to-Lead and Web-to-Case)
2. Third–Party form services
3. Salesforce Suite

	Cost	Direction	Complexity
Simple Web Forms	Free	One direction, inbound to Salesforce	DIY
Third–Party Form Services	Low	One direction (occasionally both)	DIY or Developer Assistance
Salesforce Suite	Moderate to High	Bi-directional	Developer Assistance Needed

1. Simple web forms (Web-to-Lead and Web-to-Case)

Salesforce allows you to generate simple HTML web forms (Web-to-Lead or Web-to-Case) that create lead or case records in Salesforce when they are submitted. Any Salesforce administrator can create these forms and paste them into Drupal for users to complete.

Cost: Free
Direction: One direction, inbound to Salesforce
Complexity: DIY



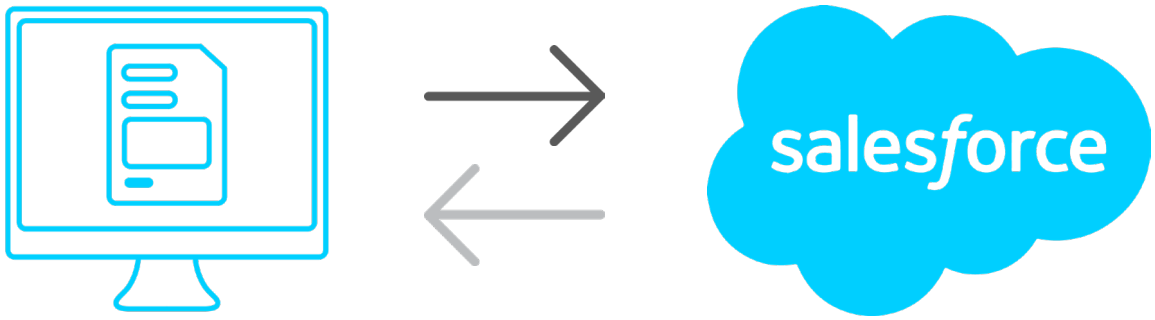
2. Third–Party form services

There are a number of form services such as Formstack, Click & Pledge, and Wufoo that pass data to Salesforce. You can either embed the form in Drupal or have users click through to the platform.

Cost: Low

Direction: One direction (occasionally both)

Complexity: Ranges from DIY to requiring developer assistance



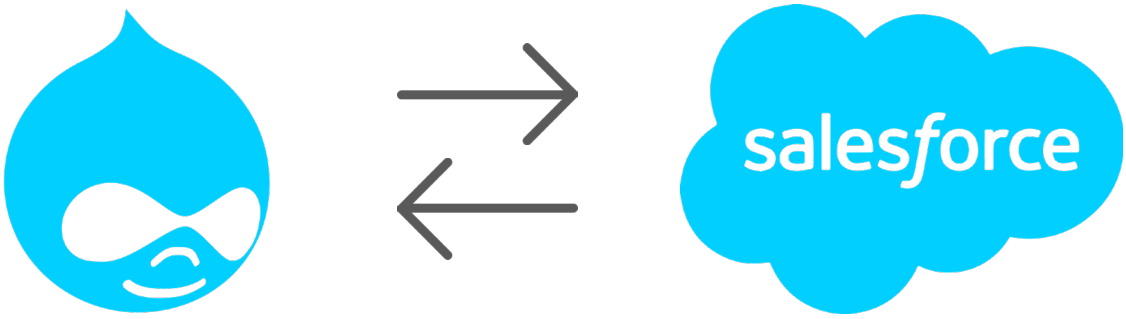
3. Salesforce Suite

The Salesforce Suite is a collection of Drupal modules that allows synchronization of data between Drupal and Salesforce in one or both directions. The Suite provides a mapping tool that you can use to define the integration field-by-field and object-by-object.

Cost: Moderate to high

Direction: Bi-directional

Complexity: Developer assistance needed



Content & Experience

Contacts & Business Logic

What versions of Drupal can I integrate with Salesforce?

If you are using Web-to-Lead and Web-to-Case forms or a third-party form builder, you can use any version of Drupal.

In terms of data synchronization using the Salesforce Suite, stable versions of the modules are available for Drupal 7 and Drupal 8. Message Agency led the charge for porting the Salesforce Suite to Drupal 8.

You can read more about the module and download it here:
http://drupal.org/project/Salesforce

About Simple Webforms

What are they?

If you need simple ways to get information on users or user requests into Salesforce, Web-to-Lead and Web-to-Case forms are your answer. Salesforce has a facility for generating simple HTML forms. The solution is very flexible, so that Salesforce administrators can create new lead and case record types and add fields to each type, based on the data you need to collect. You can then generate specific forms for each record type and include those on your website. The Web-to-Lead form creates a lead in Salesforce, and a Web-to-Case form creates a new case.

When are they useful?

While they will not address every circumstance, there are specific situations when this method is a good solution:

- You need to get basic user data or inquiry information into Salesforce.
- You have little to no expertise in web development.
- You need something quick and easy.

What are the Pros and Cons?

Pros:

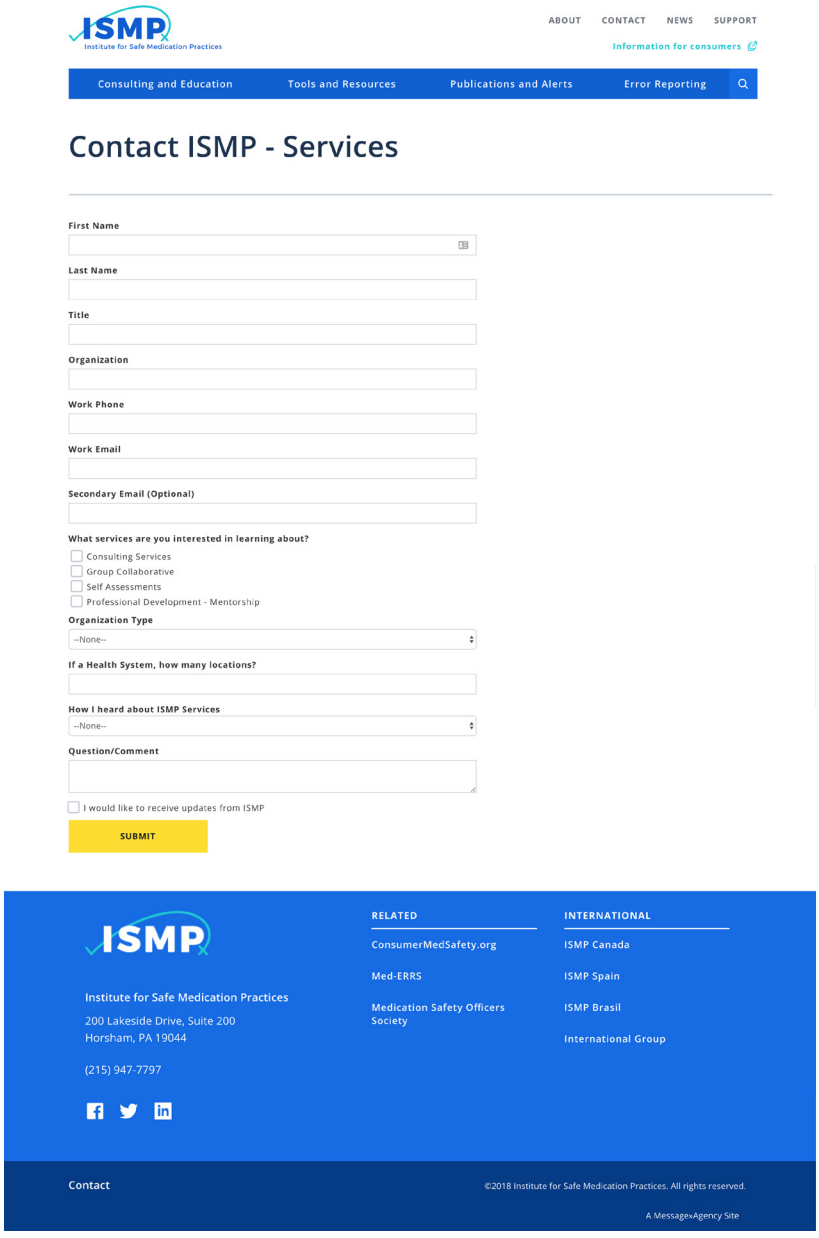
- It is a flexible solution.
- It is highly customizable, particularly if you know how to add fields to Salesforce leads or cases or add new lead and case record types.
- It is easy for an administrator to change the form as needed.
- You can tie into Salesforce workflows to automate back-office processes.

Cons:

- The generated forms are very roughly formatted and usually need some clean-up and styling with CSS to look professional.
- This method is only useful for leads and cases; it won't create records for other Salesforce objects you may already have created to support your process.

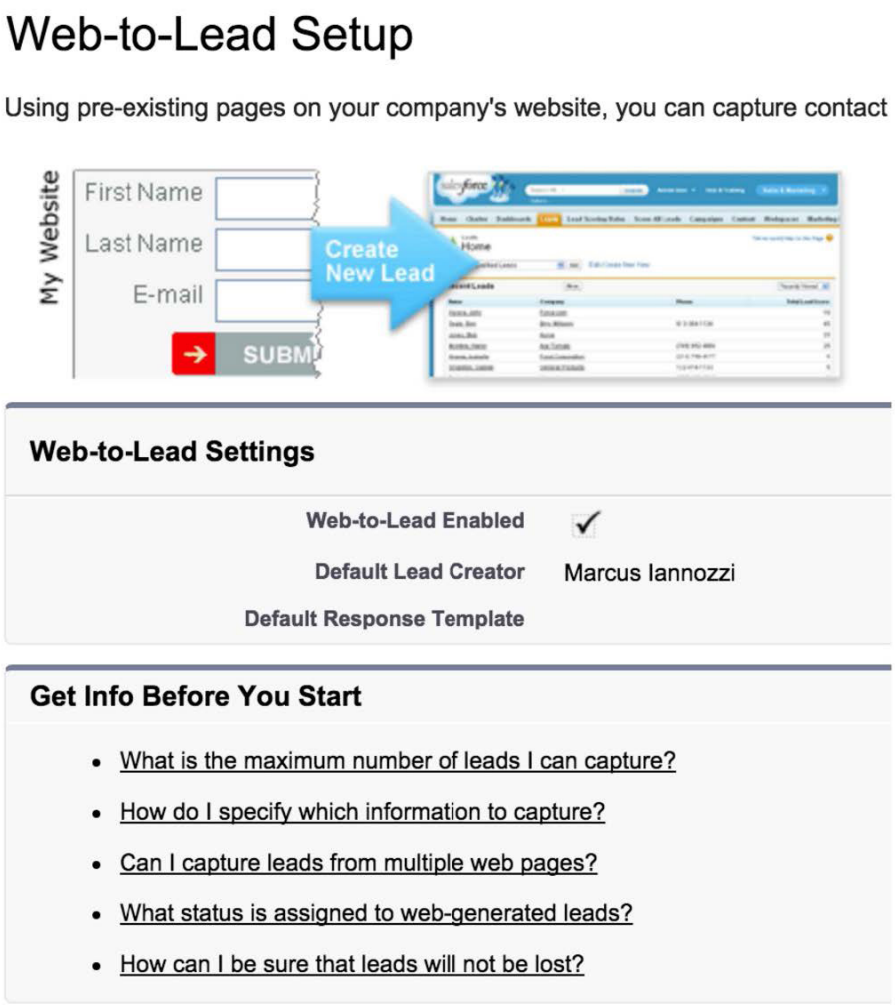
What are some use cases?

- Simple contact forms
- Forms for submitting questions or feedback
- Simple requests for service inquiries
- Newsletter sign-ups



How do I do it?

1. Make customizations to lead or case in Salesforce:
   Setup > App Setup > Customize > Lead > Fields
2. Generate the form HTML:
   Setup > App Setup > Customize > Leads > Web-to-Lead
3. Copy the code snippet.
4. Paste the code snippet directly into the HTML source of your Drupal page or block. Be sure you edit the HTML directly using the "Source" button, or else the form won't render properly on the page.



About Third-Party Platforms

What are they?

When you would like to get information on donors and donations, event registrants, and other fundraising tools into Salesforce, you will need a more robust solution. If you are unable to build, you can always 'buy" services that provide ready-made solutions that pass data to standard Salesforce objects such as contacts, opportunities, or campaigns.

These solutions are offered by software-as-a-service (SAAS) platforms with form-building tools that allow you to create custom forms or use existing forms that let users complete transactions. Some of the most popular services include Formstack, Wufoo, Click and Pledge, Classy, and CVent. These and other companies provide integrations with Salesforce that can be found on Salesforce's AppExchange. (You can search the AppExchange to find services for most of the data management needs a nonprofit might have.) Keep in mind, however, that you will likely need to pay an additional subscription fee to use the integration that will be added to whatever monthly or service fees the platform already charges.

The exact method for integrating these forms into your website varies by service but, in general, you can either embed the forms onto your website or link users through to a form on the service's hosted pages. In some cases, you can create an HTML template to make the hosted form look more like a page on your website.

When are they useful?

This method is good when the following conditions apply:

- You need to pass both user and transaction data into Salesforce.
- You don't need the information to move in both directions.
- You may want users to log in to submit a form or return to the form and provide more information later.
- You want sophisticated solutions that don't really need to be customized.

What are the Pros and Cons?

Pros:

- You get advanced functionality for little to no development.
- Someone else maintains the solution for you.
- You can offload financial transactions onto a third-party website, which dramatically limits your liability.

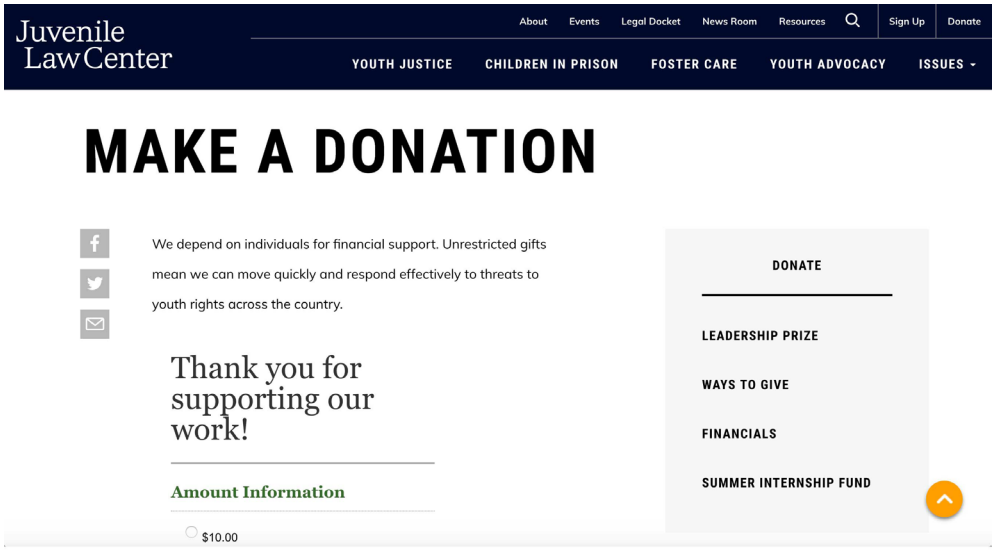
Cons:

- In many cases you are sending users off your website; research shows that non-branded forms raise fewer dollars.
- With off-the-shelf solutions, customizations are limited, and you may not get the form, data, or experience you want.
- These platforms can routinely lead to duplicate contacts in Salesforce if the provider doesn't match contacts reliably (or at all).
- Some services like CVent require updates to Salesforce schema that may complicate your data. (Your Salesforce schema is all your record types and their relationships to each other.)
- Some services require both a monthly fee and a per-transaction cost.

What are some Use Cases?

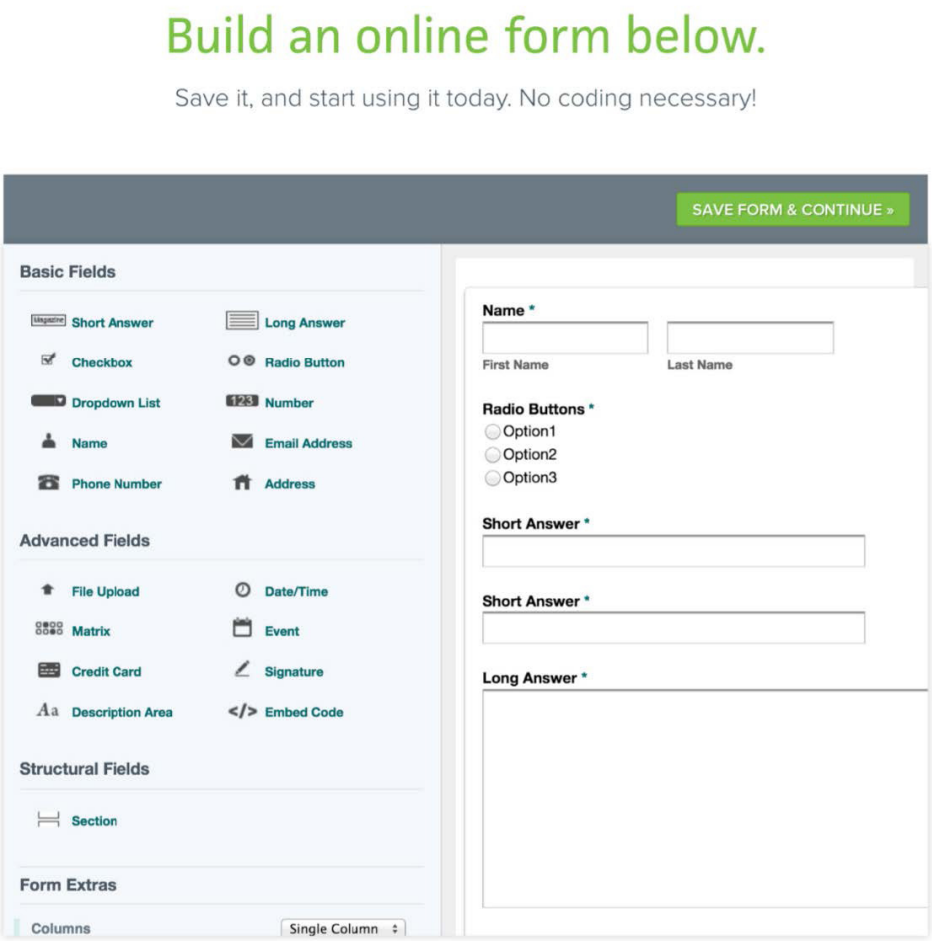
- Donation forms
- Event registration
- Peer-to-peer fundraising
- Volunteer, scholarship, or program applications that require multiple screens or the ability for the user to save and return to complete the form later.

(See image on next page)


Juvenile Law Center
About
Events
Legal Docket
News Room
Resources
Sign Up
Donate
YOUTH JUSTICE
CHILDREN IN PRISON
FOSTER CARE
YOUTH ADVOCACY
ISSUES
MAKE A DONATION
We depend on individuals for financial support. Unrestricted gifts mean we can move quickly and respond effectively to threats to youth rights across the country.
Thank you for supporting our work!
Amount Information
$10.00
$25.00
$50.00
$75.00
$100.00
$250.00
$500.00
Enter Other Donation Amount
Minimum is $1.00
Payment Information
Bold field is required input
Title
First Name *
Last Name *
Address *
City *
Country
-Select
State/Province *
Zip/Postal Code *
Phone *
Mobile
Email *
Re-enter Email *
Comment
I prefer this donation to be anonymous
Yes
No
Honorariam/Memorial Type
Honor
Memorial
Name of honoree/memorialized individual
One Time
Recurring
DONATE
LEADERSHIP PRIZE
WAYS TO GIVE
FINANCIALS
SUMMER INTERNSHIP FUND

How do I do it?

1. Install the platform's Salesforce app from the AppExchange.
2. Make any needed configuration or mapping updates.
   Develop your form or feature in the platform.
3. If the form will be hosted on the platform, create a template so the form resembles your site.
4. Embed your form in Drupal or provide a link to the platform.



About the Salesforce Suite

What is it?

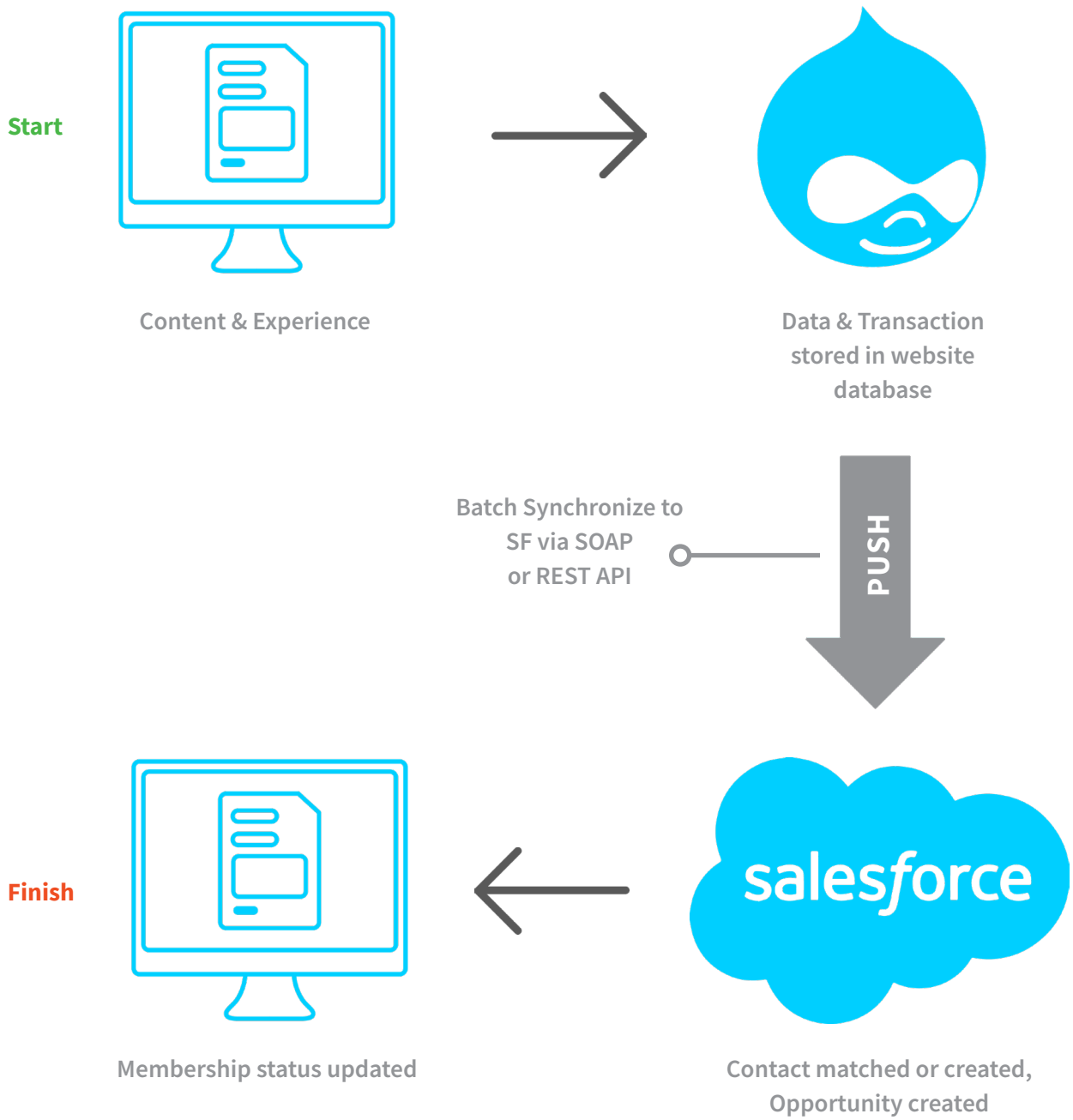
The Salesforce Suite is a set of Drupal modules that allows you to synchronize data in one or both directions between Drupal and Salesforce. It leverages Drupal's and Salesforce's APIs to connect the systems and exchange data in real time (synchronously) or with a slight delay (asynchronously). You can map Drupal entities (users, content types, and even products created in Drupal Commerce) with Salesforce standard or custom objects (contacts, organizations, opportunities, campaigns, and more). The mapping tool allows you to map specific fields in Drupal to fields in Salesforce. Advanced users can even transform the data if the field types are mismatched between the solutions (a text field versus a multiple-choice field, for example).

When is it useful?

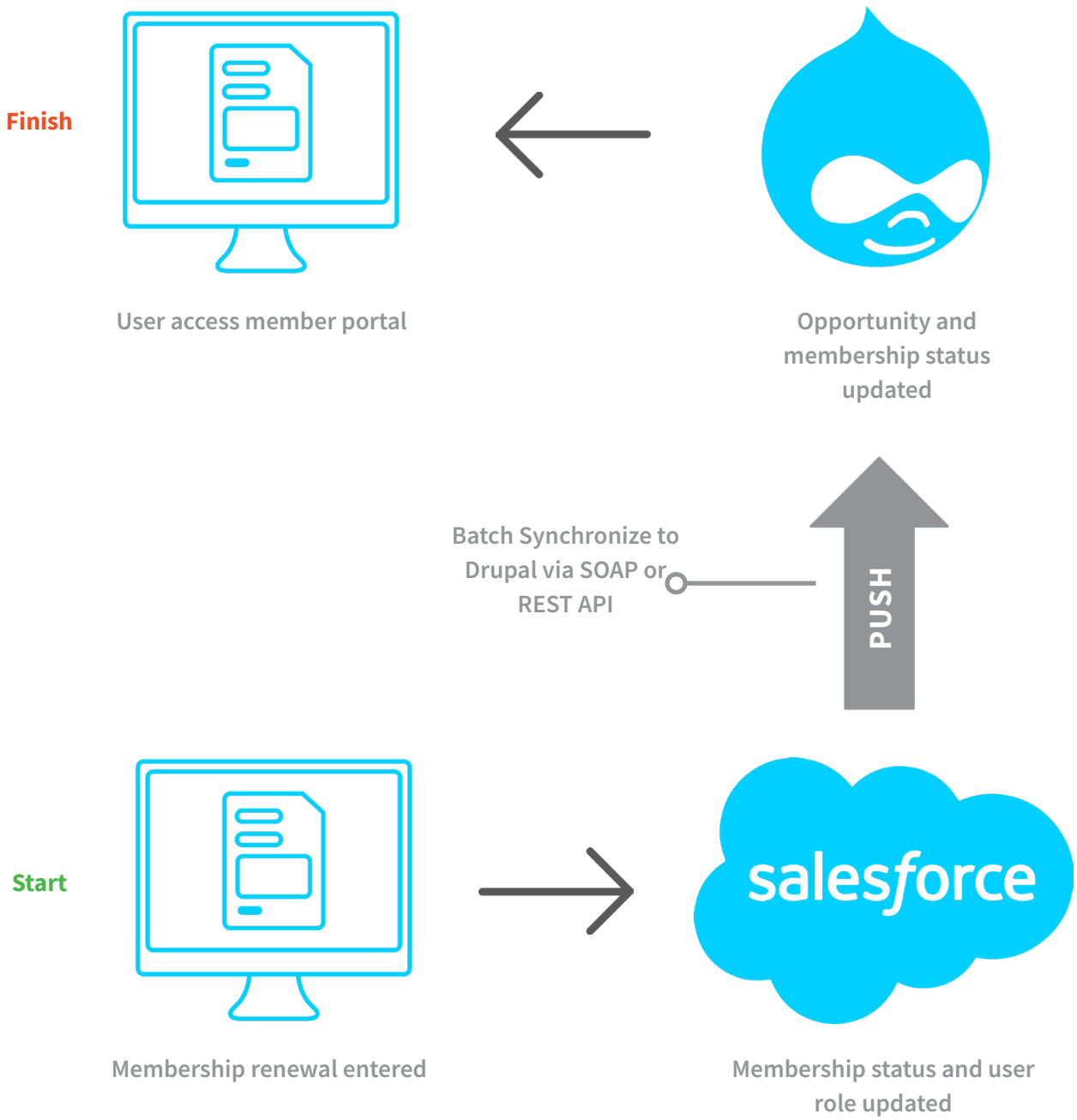
To more clearly explain the value of this approach, let's take the example of a membership purchase and renewal. Memberships are a good use case to consider since a member's status often drives their experience on your website, whether it is to view renewal notices, access restricted members-only content, or have member discounts automatically applied to purchases on the site. Unlike third-party solutions, this integration makes Drupal aware of a user's status in Salesforce and allows you to more strategically direct their experience on your site to guide them to important content and calls to action or deepen their engagement at the point of each conversion.

When the integration is bi-directional, your user can initiate a transaction like a membership purchase on the website. This purchase can open up access to all of the member benefits that your organization provides. However, if a member renews offline or pays for an event registration at the event itself, and that transaction is recorded in Salesforce, a one-directional integration or third-party application does not make Drupal aware of the data. Bi-directionality, on the other hand, allows the new information to make the round trip from Salesforce to the website. This is just a small example of how powerful the solution can be if it is planned and configured properly.

Drupal to Salesforce: Membership Purchase



Salesforce to Drupal: Offline Membership Renewal



Overall, this approach is ideal if:

- You want to fully utilize what both solutions have to offer, so that Drupal does what it does best as a content management system and Salesforce remains the place where you manage and mine your data.
- You want to control and customize the visitor's experience using Drupal and that experience includes user accounts and logins.
- You need data to move in both directions.
- You want to map custom objects, not just standard ones.
- You want to reduce duplicates in Salesforce. (Drupal is good at connecting data to an existing user/contact.)
- You don't want to pay for additional user licenses. The key benefit here is that you can have as many users log in to Drupal as you want. You don't need to purchase Salesforce licenses for Force.com or Community portals to expose Salesforce data to your authenticated users.

You can integrate Drupal and Salesforce using the Suite in one direction (Drupal to Salesforce only) or in both. In some cases, you can use both methods on the same site, integrating along a single direction for some node types and moving data in both directions for others.

Integration in One Direction

For integrations in one direction, data entered in Drupal node forms are pushed to Salesforce and populate objects that are mapped in the Suite. Because the data moves in only one direction, this approach can be set up and managed by a more advanced Drupal administrator, mapping fields and objects without the need to know PHP programming. It still takes care and patience, as well as an understanding of Salesforce's schema, but it is possible to do this approach on your own.

When is it useful?

- You want to pass user data, transaction data, and specific node types, like events.
- You want to keep the user on your website for all transactions and activity.
- You need to use one-directional synchronization to keep the integration simple.
- You don't need updates in Salesforce to impact the user experience in Drupal.

What are the Pros and Cons?

Pros:

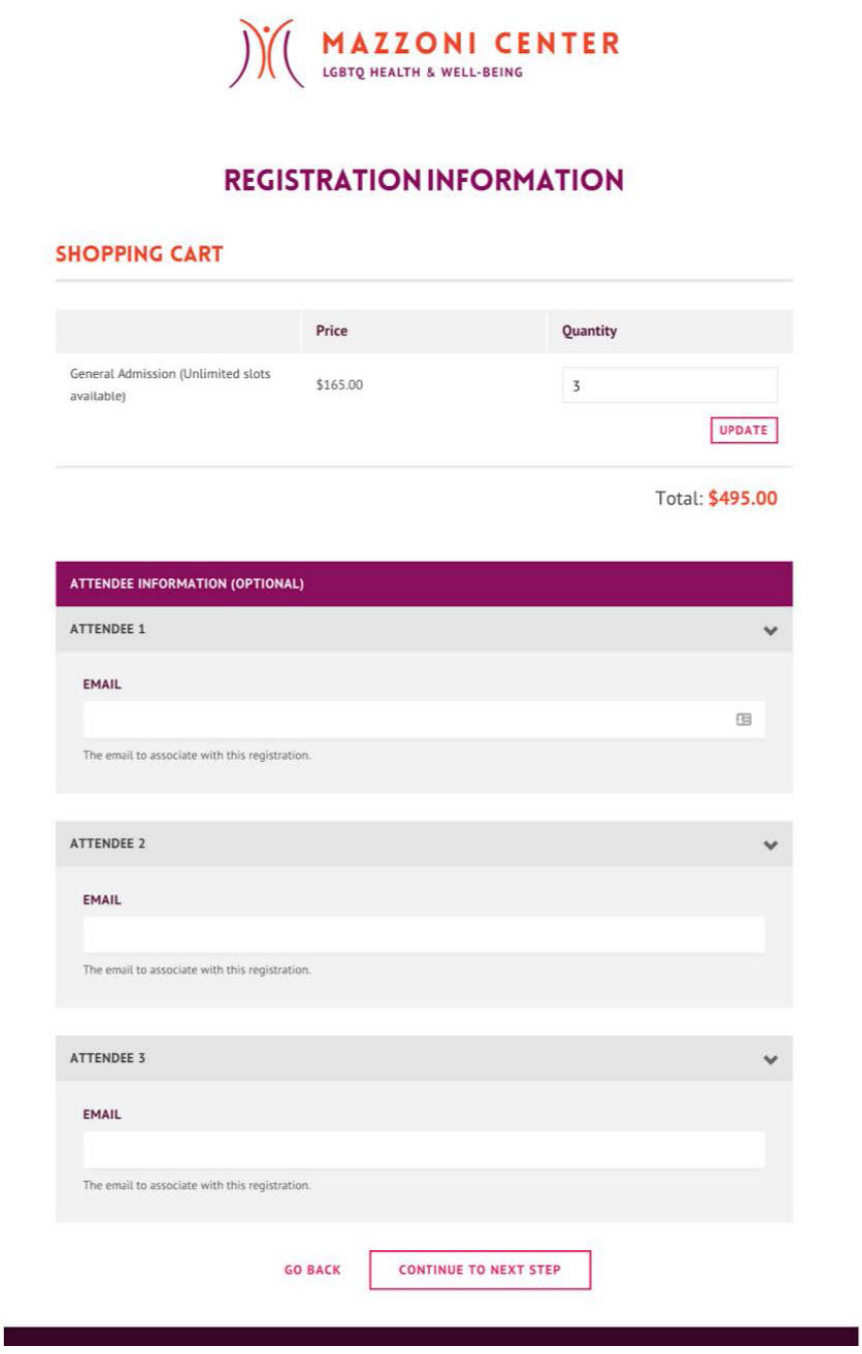
- This approach limits complexity and therefore liability and errors.
- It is easier to support and make changes over time.
- Drupal is still aware of activity and transactions, so you can continue to target the user and customize experience.

Cons:

- Advanced development and knowledge of both Drupal and Salesforce schema are a necessity.
- You may need the help of a developer to set this up properly.
- The integration will break if changes to the Salesforce schema are made without updating the mapping in the Suite.

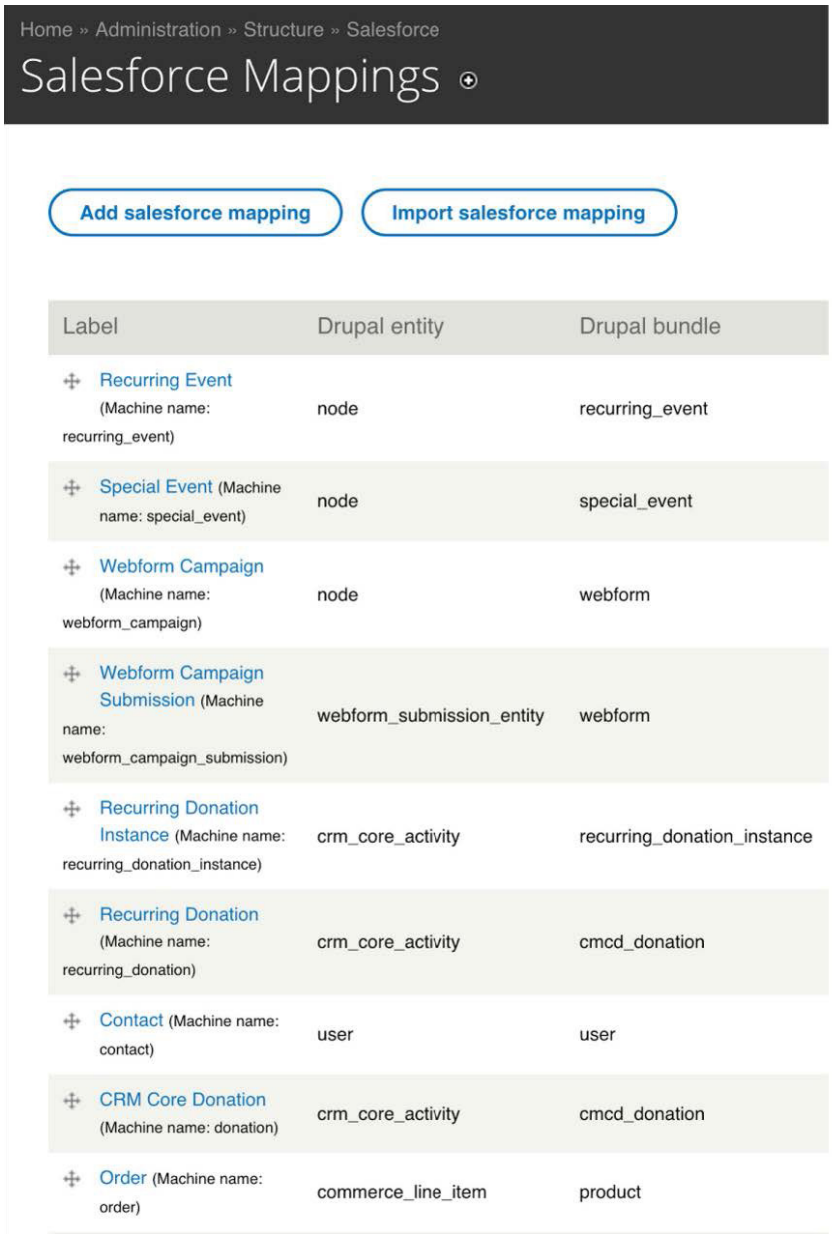
What are some Use Cases?

- Donation forms
- Event registration
- Volunteer, scholarship, or program applications



How do I do it?

1. Define your integration points (what data needs to pass).
2. Install the Salesforce Suite.
3. Connect Drupal to your Salesforce instance.
4. Enable the SF Mapping and SF Push modules.
5. Map objects and fields across both solutions.



Label	Drupal entity	Drupal bundle
Recurring Event (Machine name: recurring_event)	node	recurring_event
Special Event (Machine name: special_event)	node	special_event
Webform Campaign (Machine name: webform_campaign)	node	webform
Webform Campaign Submission (Machine name: webform_campaign_submission)	webform_submission_entity	webform
Recurring Donation Instance (Machine name: recurring_donation_instance)	crm_core_activity	recurring_donation_instance
Recurring Donation (Machine name: recurring_donation)	crm_core_activity	cmcd_donation
Contact (Machine name: contact)	user	user
CRM Core Donation (Machine name: donation)	crm_core_activity	cmcd_donation
Order (Machine name: order)	commerce_line_item	product

Integration in Two Directions

For bi-directional synchronization, data entered in Drupal by the user and in Salesforce by administrators moves in both directions across the applications. Either synchronous or asynchronous updates keep information aligned in both systems. Note that this approach is highly advanced and requires well-formed schema and workflows in Salesforce as well as code in addition to the Suite to make sure your solution functions well.

It is helpful to use this method when:

- Data entered directly into Salesforce needs to impact what a user sees, has access to, or experiences in Drupal.
- You need to take advantage of marketing automation and customized web experiences.
- Your site requires user authentication.
- Your users need sophisticated interaction such as the ability to view offline data you have entered in Salesforce on their user profile in Drupal (for example, to see both donations paid on the website and donations paid by check).

What are the Pros and Cons?

Pros:

- Removes the need for Salesforce per-seat licensing.
- User experience can reflect business logic driven by Salesforce.
- Performance issues due to live queries or dropped connections are mitigated.
- Fewer duplicate records are created in Salesforce.

Cons:

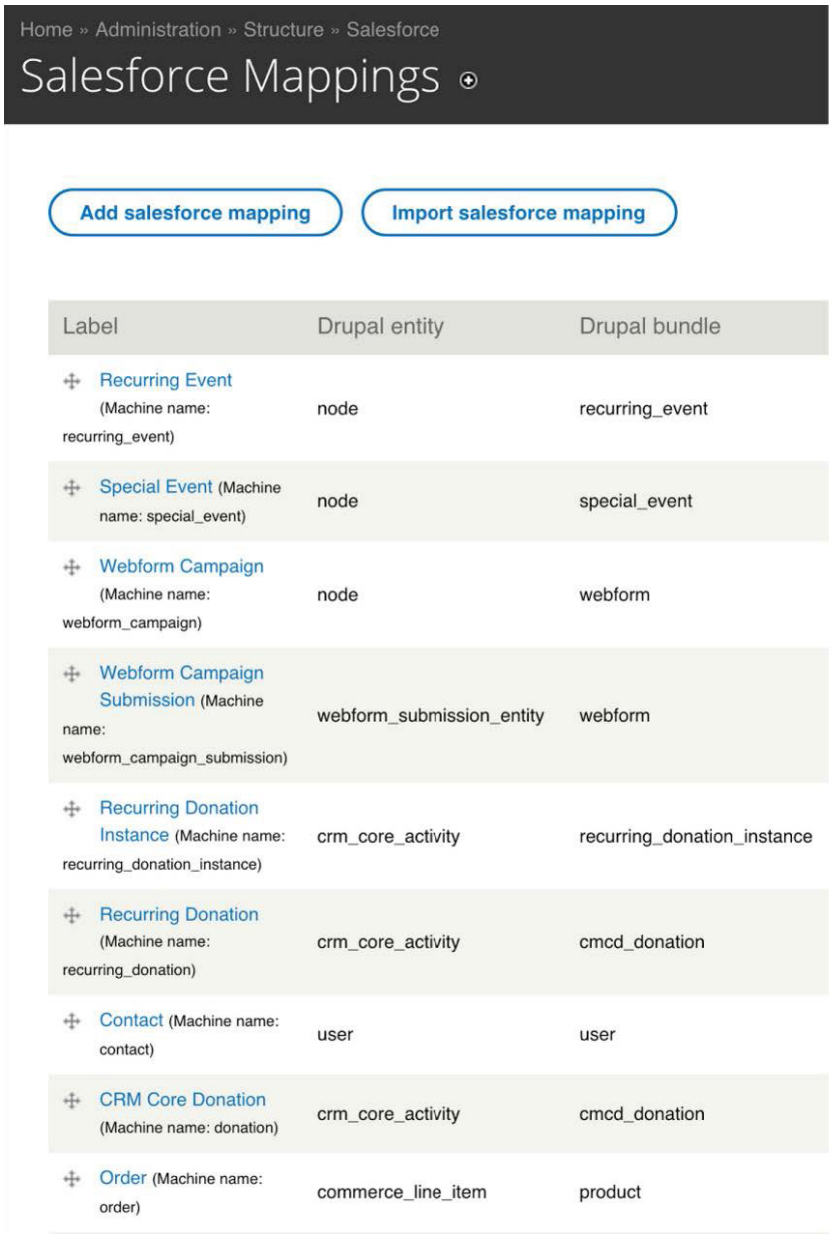
- Usually requires the help of a developer.
- Synchronization can be a hard problem to solve, so you need to be aware of potential race conditions. A race condition is when both systems attempt to perform conflicting actions at the same time, such as editing the same record.
- The approach almost always requires the creation of custom PHP code and, potentially, custom Drupal modules.
- Schema mismatches between Drupal and Salesforce are compounded when data moves in both directions.

What are some Use Cases?

- Membership
- Account management
- Peer-to-peer fundraising
- Course management, tracking continuing education unit (CEU) credits

How do I do it?

1. **Define your integration points.**
2. **Install the Salesforce Suite.**
3. **Connect Drupal to your Salesforce instance.**
4. **Enable SF Mapping, SF Push, and SF Pull.**
5. **Map objects and fields across both solutions.**



Label	Drupal entity	Drupal bundle
Recurring Event (Machine name: recurring_event)	node	recurring_event
Special Event (Machine name: special_event)	node	special_event
Webform Campaign (Machine name: webform_campaign)	node	webform
Webform Campaign Submission (Machine name: webform_campaign_submission)	webform_submission_entity	webform
Recurring Donation Instance (Machine name: recurring_donation_instance)	crm_core_activity	recurring_donation_instance
Recurring Donation (Machine name: recurring_donation)	crm_core_activity	cmcd_donation
Contact (Machine name: contact)	user	user
CRM Core Donation (Machine name: donation)	crm_core_activity	cmcd_donation
Order (Machine name: order)	commerce_line_item	product

About the Author

Marcus Iannozzi graduated from the University of Pennsylvania and has over 20 years of experience implementing communication and marketing strategies for the public and nonprofit sectors. Entrepreneurial in spirit, but a poet at heart, Marcus firmly believes that business can be done differently. He has grown Message Agency from a solo practice to a thriving social enterprise with the sole mission of providing nonprofits, universities, foundations, and governments with the tools and resources they need to impact the greater good.



About Message Agency

Message Agency is a full-service interactive agency based in Philadelphia. We are also a certified B Corporation and a social enterprise that helps good organizations use great technology to enlighten, educate, engage, and enact change.

For over a decade, we have built brands, websites, and web applications for the third sector, exclusively serving foundations, universities, and nonprofit organizations. We are known for using open source tools like Drupal to deliver complex sites that are easy to use and administer. And we support what we build, so we do it right the first time.

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