

Case Study

# Data Synchronization between Magento and VTiger

Between an E-commerce product and a CRM product

# Executive Summary

The customer had a CRM application (Vtiger) with inventory tracking and wanted product sales website using an existing e-commerce product (Magento) for quick turnaround. The challenge was to bring the CRM data to the web while keeping the CRM data in sync with the web based e-commerce application for inventory tracking, sales orders and customer management.

Another challenge we faced as we proceeded with development and overcame was the mapping of entity attributes/datatypes in the two separate systems that had their own schemas and ways for storing customer, product and sales order data.

# About our Client

**Client** Custom software development company | Location **Vancouver**, BC, Canada | **Industry** Web Application

## **Technologies**

Linux, Apache, MySQL, PHP, Magento, VTiger, CodeIgniter, SOAP API, XML, curl, Agile

## Solution Details

## The Magento – vTiger Bridge:

We architected and developed a solution using the codeigniter (PHP) framework to synchronize the information between the two systems; Magento - one of the biggest online shopping solutions and vTiger CRM, a branch from the Sugar CRM code.

The bridge requires some initial configuration in order for it to work. The application requires the user to enter the Magento and VTiger API credentials in order to connect to their API's and access data.



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We used PHP SOAP client for accessing Magento APIs and PHP CURL for connecting to vTigers API/database. Once the configuration settings are done the next step is for the user to map the fields in the two systems. The standard fields are auto-mapped and any custom attributes in either system can then be mapped and added as well via an easy to use interface (See Appendix: A with application screenshots for mapping interface).

The User Map Interface allows the user to set the field map for the different data synchronization points and when they hit Run the fields are mapped accordingly.

In the local database we keep track of the mapped fields and the mapped records for both Magento and VTiger. Whenever the mapping changes, we overwrite the mapping and the next synchronization is done reading the new mapping scenario. The UI of the bridge has the sections for all type of synchronizations described above and these synchronizations can be run individually, though there is a back end CRON process that is scheduled to run the entire synchronization process periodically.

When CRON runs, it calls up the APIs and checks the DB maps for the current mapping pattern and synchronizes the records. We keep track of the entire CRON process and log errors if any occurs. Describing local data base in more detail we have map tables and record map tables for all type of synchronizations. In map table we assign non duplicable ids to all of the records from both of the CRMs and against them we define a map id field that tells which record from one side corresponds to which record of another side. Mapping fields play a very critical and important role in the synchronization as we have to decide dynamically which field of the record from Magento will overwrite which field of the record at vTiger side. Some common mapping pattern is presumed and is set in the background such as product name, sku etc.

The synchronization process is then entirely done on the fly and we never store any data or records from any of the clients in any local server. Yet we keep track of mapping for the different fields and records for the CRMs.



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## **Overall Process Diagram**

If we draw an overall process diagram for the Bridge, it will somewhat look like this:





#### Using our solution

- we allowed the customer to Stay with existing CRM system for telephonic orders taken by CSR's/operators/order
- allowed for single system to manage inventory, customers and sales orders data, which in turn results in better management of data

An online web store often stores a large amount of data about products, orders and customers. Sometimes it is difficult to manage data if we have to keep them both in a CRM (VTiger) and e-commerce (Magento). There is a need for double entry and checking sales periodically to keep control over the inventory. Magento VTiger Bridge helps synchronizing records from a Magento store to VTiger which is a powerful system in data management. The synchronization created an easy way to get the orders into vTiger thereby avoiding manual processing which is time consuming.

Give below are screen shots of the different synchronizations done, namely, Customer Synchronization, Product Synchronization and Sales Synchronization.



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## Customer Synchronization:

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	Fields To Be Map	ped By User	
	Product Name:	name v	
	Product Active:	none V	
	Sales Start Date:	news_from_date 🔍	
	Sales End Date:	news_to_date 🔍	
	Website:	url_key 💌	
	Created Time:	none 🗸	
	Unit Price:	price 💌	
		Submit	
	Back Sync With Pre	złows Map	
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#### Screen 2

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## Sales Synchronization:

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Sales and Orders N	apping	
Basic Fields, Map	ped Already	
Contact Name:	mapped to Customer Name	
Customer No:	mapped to Customer Id Of vTiger	
Created Time:	mapped to createdtime	
Modified Time:	mapped to modifiedtime	
Billing Address:	mapped to Billing Address	
Shipping Address:	mapped to Shipping Address	
Pending:	mapped to Status of the Magento Order	
Discount Amount:	mapped to hdnDiscountAmount	
Total:	mapped to hdnGrandTotal	
Fields Mapping		
Subject:	increment id	
Excise Duty:	fax amount	
Sub Total:		
Assigned To:		
Description:	shinnin description	
Terms & Condition		
	Submit	
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User: admin → LOG OUT

Screen 2

Magento - vTiger Bridge

Home Product Sync Customer Sync Sales Order Sync

Sales Order Synchronization

Sync Options

 Magento to vTiger

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# Future relationship

The client was pleased with Mindfire's effort and reckoned that they were happy to have discovered a professional offshore IT unit. We shall continue to be the service provider for the next versions of the client's product. They have not only allocated the support and maintenance work of the current system to Mindfire but have also chosen us for future customization work.