

## **Web Integration**

One of the most important aspects to consider when planning an ecommerce web site is the data.

You can setup a web store that uses its own source of information that is maintained separately, or you can take an integrated approach to leverage the customer, product, order, and invoicing information that is available in the accounting and order fulfillment system at your office.

Here are a few scenarios to compare and contrast an integrated web store to one that is not integrated.

### **Managing Customer Information**

Add new customers to accounting from the web store

#### Fully Integrated

New customer record created automatically in accounting. A web serial number is placed in the customer record to provide an audit trail.

An accounting system customer number is generated automatically that matches the customer numbering system used by the company.

Sales person, territory, and account settings are all automatically established when the customer is added.

If the customer changes their contact information on the web site, the change flows down to the accounting system.

If you update customer information in the accounting system, then the change flows up to the web site.

#### Not Integrated

Users type in the customer information number by hand. Changes are made at the web have to be hand entered in the accounting system, and changes made in the accounting system have to be hand entered on the web site.

Manually entered data cannot be kept current. If your web site is successful, then you end up with a large number of customer records in two databases that are both inaccurate.

Eventually, customers will get shipments to the wrong address, and accounting staff will be hard-pressed to reconcile the two customer lists.

## **Activate existing customers so they can order on line**

### Fully Integrated

Existing customers can activate their web account at the web store by entering two or three key pieces of information, such as, customer number, invoice number, and/or telephone number.

The web store uses this information to find the customer's existing account. The user does not have to enter their address information.

### Not Integrated

Existing customers register all new information. In most cases a duplicate customer record is created. A manual reconciliation can be done to delete the old or new customer record to eliminate the duplicate.

## **Add shipping addresses to accounting from web customers**

### Fully Integrated

Customers will be able to select shipping addresses that have been previously entered in the accounting system. Users can enter a new shipping address on line, and that address will show both on the web store and in the accounting system as an available shipping address.

Customers can update their shipping addresses and select one that will be a default on the web on in the accounting system. Accounting staff can edit shipping addresses, and those edits will show both in accounting and on the web store.

### Not Integrated

You end up with two shipping address tables that do not match.

## **Display order status & account history**

### Fully Integrated

As shipping takes place in accounting record, order records reflect new shipping information. The updated order data is updated automatically to the web site as it changes, and customers can view the current status in real-time.

Customers can look at past invoices, and they can reorder products they have purchased in the past both from the web site and through conventional sales over the phone.

### Not Integrated

Customers can call you to check on their shipments and request that you fax them statements or past invoices.

## **Display Product Information**

### Fully Integrated

You can display product part numbers, descriptions, availability and pricing based on the data and rules that are established in the accounting system.

### Not Integrated

You have to maintain the data and business rules in two databases.

This leads to customers getting the wrong price.

## **Achieving Full Integration**

Full integration can be accomplished by web developers that have complete knowledge of how the accounting system manages customer and product information.

### Maintaining Data In Two Locations

Accounting databases are typically maintained at a company office. Web databases are typically maintained at a large data center designed for high-availability hosting of web sites.

The web site needs to run even when the company accounting database is not available. This can occur when the accounting is undergoing maintenance, or when Internet connectivity or power is lost at the office.

### Getting the Details Right

Good integration requires that the web data respect the data requirements and limitations of the accounting system. For example, an address field may be 30 characters in the accounting system. If the web store accepts 40 characters, then there will be serious data integrity problems.

Addresses will get cut off, and shipments could go to the wrong destination. This applies to all of the fields. If there is any difference between the two systems, then data will be lost, and errors will be made in order processing.

### Integration Principles

The first rule of information processing is that you should enter data once and use it over and over consistently.

The second rule of information processing is that you need to maintain an audit trail so that you know the source of a data change.

Both of these principles are realized in integrated web site systems.