

Modelling Recurring Services

As companies move to a Service-Delivery model the focus shifts from building and selling products to managing ongoing or recurring customer relationships, resulting in predictable revenue streams. This Knowledge Article will outline the design concepts, configuration considerations, and setup recommendations to support recurring services business models in salesforce.

Common Industries, Use Cases and Major Service Delivery Types

There are many types of Industries that have embraced a recurring services model. Some of the more common ones are subscriptions to research articles/advice from Financial Services and Investment companies, Magazine or periodicals in Media, and of course, SaaS offerings from companies like Exactly, Concur, and salesforce.com. Typical Use Cases or Types of Subscription services can include for example:

- Products/Services delivered/consumed weekly, monthly
- Products/Services invoiced monthly, quarterly, yearly
- Services delivered continually (such as web-based services) but billed periodically with frequent changes/addons/upgrades
- Products sold once but with periodic (monthly) support contract/services
- Annual memberships pay up front such as AAA and the primary goal is to manage renewals

Salesforce Data Model

Before we dive into the components of supporting a subscription business its worthwhile to cover a brief definition of each of the main standard objects. Please note the terms in italics at the end of each definition are some of the most common or relevant fields on the object.

Account is the primary object of all transactions managed in salesforce.com. For each Account, you can store extensive related information such as Opportunities, Activities, Quotes, Contracts, Cases, and Notes. Contacts are associated with Accounts and most transactions can also be associated to a Contact as well. (*Name, Address, Phone, Status*)

Opportunities is the primary object used in the Sales Cloud to manage sales and pending deals that you want to track throughout the sales process to build your "sales pipeline". Opportunities also include 1 or more associated "Opportunity Products" that are specific instances of a product associated with each Opportunity. The sum of the amounts of the individual products roll up to the "Amount" field on the Opportunity. (*Account, Close Date, Stage, Amount*)

Products_are items or services that you sell/support through Opportunities, Quotes, Orders, or Service Contracts. They can be defined in 1 or more Price Books and each product can have standard one-time pricing, as well as recurring schedules that allows for managing the delivery and revenue of the product on a recurring basis. (*Item, Quantity, Price, Discount, Date*)

A **Quote** is created directly from an Opportunity and its Products showing the proposed prices for products and services. Each Opportunity can have multiple associated Quotes. Generated PDF Quotes can be emailed directly to your customer. (*Expiration Date, Status, Amount*)

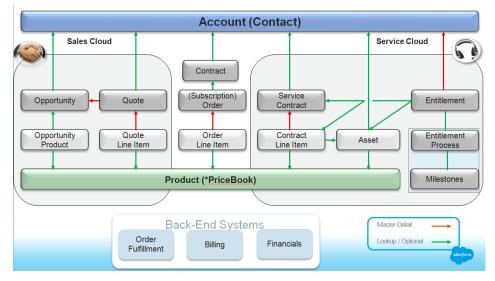
A **Contract** is an agreement with your customer that defines the terms and conditions for doing business. Contracts typically incorporate an Approval Process and leverage workflow for renewals. Please note that Contracts themselves do not have Line Items or an Amount field, but often have Orders linked to them. (*Status, Start/End Dates, Term*)

An **Order** is an agreement with your customer to provision services or deliver products with a known quantity, price, and date. Your may require Orders to be added to a Contract, or added directly to an Account. Orders could also be thought of as "Subscriptions". (*Type, Amount, Authorized*)

Assets represent the specific products your customers have purchased. They can also represent a competitor product that your customer has or versions of your products. Your customers may be eligible for support based on a specific asset (Model, Serial #, Purchase Date)







This diagram outlines the standard Data Model in salesforce.com. These Standard Objects can be configured to support recurring products and services. In general most business processes flow from left to right, and use of some objects such as Quotes or Assets depends on the nature of each business.

If we look at what needs to be setup in salesforce to support recurring services, the key Object is the use of Products and defining recurring products appropriately.

Key Elements of the Product Object

Products/Services can be defined by category or other custom fields, and each Product has a Standard price, as well as List prices as defined in 1 or many Price Books. Products are key to Opportunities, Quotes, Orders, and Service Contracts as these Objects use Products as related Line Items that roll up to each Object, and the Line Items get copied from Opportunity to Quote to Order. For pricing of services, the Standard Price is defined but can be overidden during the sales process when added to the Opportunity.

When defining products for recurring product/service delivery, you must first enable Product Quantity and Revenue Scheduling in your org (Setup -> Customize -> Products -> Schedule Setup) to allow administrators to create default revenue and quantity schedules for products. In addition, administrators can enable schedule settings that allow users to create schedules for individual products on opportunities. The following applies to setting up schedules:

Schedules determine the payment and delivery cycles for a product. After you've established pricing for your products, you can establish default schedules on a product, as well as schedules for individual line items (opportunity products) on an opportunity.

Default schedules are suitable if all your customers make product payments on the same timetable or you deliver products on a regular schedule. However, if your users typically customize schedules, there's no advantage to creating default schedules.

Your administrator determines which types of schedules your organization can use: quantity schedules, revenue schedules, or both. Your administrator also specifies which types of schedules can be established for each separate product:

- Quantity Schedule—Suitable if your customers pay all at once, but receive the product in increments—for example
 an annual magazine subscription for a monthly-issued magazine. Outlines the dates, number of units, and number of
 installments for payments, shipping, or other use as determined by your organization.
- Revenue Schedule—Suitable if your customers make regular payments but receive the product all at once—for
 example, if you sell customized products that are charged in installments, but delivered at one time. Outlines the
 dates, revenue amounts, and number of installments for payments, recognizing revenue, or other use.
- Revenue and Quantity Schedule—Suitable if your customers receive their order on a delivery schedule and also pay for the products using a payment schedule—for example, a monthly product subscription that's paid for on a monthly basis.
- **Default Schedule** A schedule associated with a product in a price book. Administrators can establish a default quantity schedule, a default revenue schedule, or both. Every time the product is added to an opportunity, the default schedules are used. On any particular opportunity, users can override the default schedules.





Monthly Recurring Service Model

Here is an example of creating a Monthly Recurring Service. When defining the schedules users have the option of defining whether or not the Quantity specified is to be set to "Repeat Amount for each installment" repeated on a regular basis (the most common and appropriate selection in most cases – for example repeat quantity delivery of 10 items every month for 12 periods), or divide the total quantity by the number of installments (for example specifying delivery of 100 items over 4 quarterly deliveries salesforce would generate a quantity schedule of 25 items at the beginning of each quarter).

Salesforce will first calculate the total price for the Line item based on the Quantity specified and Quantity Schedule. The total amount will then be either repeated per installment period, or divided by the number of Revenue Installment periods (most common).



Here are a couple of examples of subscription products Schedules:

Date	Quantity	Revenue	ı
1/1/2015	1	\$200.00	
2/1/2015	1	\$200.00	
3/1/2015	1	\$200.00	
4/1/2015	1	\$200.00	
5/1/2015	1	\$200.00	
6/1/2015	1	\$200.00	
7/1/2015	1	\$200.00	L
8/1/2015	1	\$200.00	
9/1/2015	1	\$200.00	
10/1/2015	1	\$200.00	
11/1/2015	1	\$200.00	
12/1/2015	1	\$200.00	

1 service delivered monthly @ \$200/month for 12 months and Revenue expected monthly

- Total Amount \$2400
- Monthly Revenue \$200

1 service delivered weekly					
@ \$10/week for 1 year (52					
weeks) and revenue					
expected Quarterly					

- Total Amount \$520
- Quarterly Revenue \$130

Date	Quantity	Revenue
1/1/2015	1	\$130.00
1/8/2015	1	\$0.00
1/15/2015	1	\$0.00
1/22/2015	1	\$0.00
1/29/2015	1	\$0.00
2/5/2015	1	\$0.00
2/12/2015	1	\$0.00
2/19/2015	1	\$0.00
2/26/2015	1	\$0.00
3/5/2015	1	\$0.00
3/12/2015	1	\$0.00
3/19/2015	1	\$0.00
3/26/2015	1	\$0.00
4/1/2015	0	\$130.00
4/2/2015	1	\$0.00
4/9/2015	1	\$0.00
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Key points to remember

- Should be used to model simple products with little variation
- Work flow Rules and Field updates for attribute-based pricing will not apply to recurring products with scheduling. For example "if Product Level = "Bronze, set Sales price = \$100, if Silver set = \$150 and if Gold set \$200 is not supported. You would need to manually override the price when adding the product line items to the Opportunity, or create 3 separate products.
- Quantity and Revenue Installment periods are defined per product and not changed when adding to an Opportunity.
 However they can be changed once added to the Opportunity by selecting "Re-establish" on the Opportunity Product.
- Follow these steps in setting up Products:
 - Establish Quantity and Revenue Schedules in Setup (by Admin)
 - Define Product attributes categories, product families, custom fields, etc
 - Define scheduling parameters per product (divide, repeat, installment frequency)
 - Create Opportunity pipeline reports using quantity and revenue schedule fields



Monthly Service - Opportunity Reports

For traditional sales pipeline reports, Reports based on Opportunity Sales Stage, Forecast Category and Amount are typically used. However an Opportunity with a \$100/month recurring revenue Item will reflect a total Amount of \$1200 associated to the Opportunity Close Date, and does not reflect the recurring periods and amounts. Therefore pipeline reports must be configured to summarize 3 key fields in their reports, namely Schedule Quantity, Schedule Revenue, and Schedule Date in order to get meaningful recurring revenue reports:



An example showing the expected revenue of a group of recurring services. Schedule amounts are typically grouped by stage, category, product family, but can be grouped by other fields as well.

Monthly Service - Forecast Reports

Customizable Forecasting supports Quantity and Revenue Schedules, however the current version of Collaborative Forecasting does not currently support this. It does allow different views of Quantity and Revenue, but does not provide the recurring revenue view as outlined above. For example a \$55K Opportunity closing in Feb will show as \$55K in Revenue in Feb, not the equivalent \$4600/month for 12 months. Your analysis should define what specific values are to be included in the forecast.

- If you are looking to Forecast Total Contract Value driven by Opportunity Close Date, then use Collaborative Forecasting based on Total Opportunity Amount.
- If looking to Forecast Monthly Recurring Revenue (MRR) then you will need to define a custom Forecast Type,
 Opportunity Split and add some custom fields to support this requirement (see below).
- If you are looking to forecast on expected Revenue by month for example, then you will need to utilize Opportunity Reports as outlined in the previous section.

You can create custom fields, rules and forecast types to forecast MRR as well as Revenue Amount. The MRR value reflects the monthly value of the Opportunity, not the full schedule.

How to setup Collaborative Forecasting for MRR

First it is assumed that the calculations are based on the most common monthly periodic timeframe - MRR.

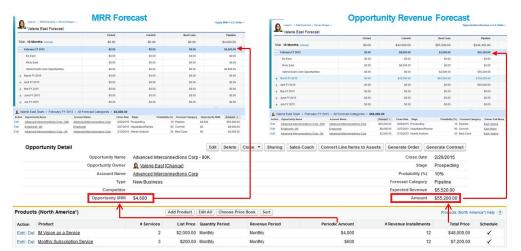
To include in Forecasts do the following (Note: field names are just a suggestion):

- Create a Custom Field on Opportunity Product called "Periodic Amount". It's a formula field calculated from the # of
 instalments and total price for the Opportunity Product. Please note there can be different formula variations based on
 whether a product has Quantity scheduled. In general the formula (#of_Services__c * UnitPrice) / # of Revenue
 Installments will create the appropriate amount.
- 2. Create a Custom Field on Opportunity Product Object called Opportunity Product MRR (this is a Currency field). Set Default value to 0. We need this for the following 2 steps.
- 3. Create a Workflow Rule on Opportunity Product and apply a Field Update Action to update Opportunity Product MRR to be = Periodic Amount.
- 4. Create New Opportunity Roll Up Summary Field called MRR that sums the Opportunity Product MRR fields (the field being summarized must be of type Currency or Number and not Formula which is why you can't summarize Periodic Amount and why Opportunity Product MRR is required).



- Navigate to Setup Customize Opportunities Opportunity Splits Settings –and define a new Opportunity Split
 Type that is based on Opportunity MRR Field and sum to 100% (this is needed for Forecasting). Call it Opportunity
 MRR.
- 6. Navigate to Setup Customize Forecasts Settings and create a new Collaborative Forecast Type based on Opportunity Split MRR. Note the Forecast will just show the MRR for the close month. For example an Opportunity closing in March has 3 line items :
 - 1. MRR of \$100/m for 12 months
 - 2. MRR of \$150/m for 12 months
 - 3. MRR of \$200/m for 18 months

The MRR Forecast will show \$450 in March regardless of how long the contract runs. You can also use Amount field to get TCV value (12*100 + 12*150 + 18*200 = \$6600) in a standard Opportunity Revenue type Forecast. However if you want to see month by month schedules you need to use Opportunity Reports using schedules until Forecasting can use schedule dates.

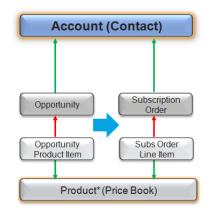


Here are screenshots of 2 Forecasts based on MRR and Opportunity Revenue for the same Opportunity that has MRR of \$4600 and a TCV of \$55,200

Opportunities to Orders

An opportunity is exactly that - an opportunity to sell a product or service to your customer and is used to manage the sales process to closure. It should eventually evolve into a Product or a Service entity that the opportunity sold and be managed as an installed/subscribed service. An opportunity that is Closed - Won often becomes an Order in a backend process or fulfillment system (salesforce, ERP or other) and thus generating the revenue. If the Opportunity is Closed - Lost, there is no Order. Once Opportunities are Closed Won, the next step in Order Management is to create the Contract or Order. In general Best Practice - Use Opportunities to manage the sale and renewal and use for Pipeline Reporting, not Subscriptions

The recommended way to do this is to install the "Generate Orders" Application from the AppExchange (www.appexchange.com) that uses customizable Visual Workflow to allow users to auto-create Orders and Contracts from Closed Opportunities or Quotes.



The Order Object (renamed "Subscription Order) "Holds" the Subscription such as Start Date, End Date, Term, Status, as well as 1 or more Line items of products (specify if recurring or not), include quantity, installation or effective dates.

Orders from a shopping cart or eCommerce site could be entered as orders (via bulk load or API) instead of Closed Opportunities. This way the Orders are still used to manage all products/services purchased by the customer.

There may be more than one Order for an Opportunity, with possibly different order types. This may be required since different Orders can get fulfilled differently by back end provisioning or billing systems so the order routes based on the nature of the products involved.

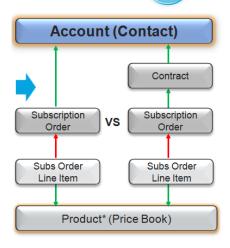
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Orders and Contracts

Some customers ask "should we associate the recurring services Orders to Contracts (and then in turn, Accounts), or associate them directly to Accounts? The recommendation depends on the nature of the service. Contracts define the terms and conditions for doing business between your company and the customer. Contracts themselves do not have Line Items or an Amount field, but often have Orders linked to them, and hold data such as Contract Status, Start/End Dates, or Contract Term). The following example may be illustrative:

A Communications ISP provides several types of services, and each type of service may have different Terms and Conditions (authorized purchasers, internal approval processes, Effective Dates, Upgrade policies, Cancellation penalties, support terms, etc) for Broadband Services as compared to VOIP services, wireless, or Hardware, for example. In this case it is recommended to associate multiple Contracts as a reference for all Subscription Orders. Each



Line of Business would establish their own Contracts, and applicable Orders would be associated with their respective Contracts. Companies would then track upcoming Renewals and Contract expirations tied to an Account. In addition if a customer cancels 1 type of Contract, they might still be a considered an "Active" Account if they have other types of services. Companies that provide a single type of service however would more commonly link Orders direct to an Account. The design approach is a matter of which model fits the business the best way.

Managing Renewals

Managing the renewals process is potentially one of the more challenging aspects of subscriptions using native salesforce. Once an Order or associated Contract is complete and has an effective end date, the next step is to manage the renewals process. Consider the following 4 main approaches that can be used:

- Leverage standard Reporting to identify and renew Contracts or Orders. This simply utilizes standard Contract
 Reports or Order reports (depending on which object manages the subscription "End Date" and provides a report of
 Contracts or Orders coming up for renewals in the next xx days.
- Use a Workflow Rule to advise Sales or a Renewals Role to create a Renewal Opportunity when the initial Opportunity is Closed-Won. This approach is similar to the point above except you would use a time based workflow rule to assign a task scheduled for 9 months out (to provide 3 months for the renewal process, for example).
- Create "Renewal" Opportunities from Service Contracts or Orders (This would require a Partner app, Visual Workflow, or special Apex Code to copy Orders and Order Line Items to a renewal Opportunity)
- Auto-create renewal Opportunities based on Contract expiration. (This is similar to the point above except would be driven from Contracts).

One final consideration is although one option identified above is to create the Renewal Opportunity when initial Opportunity is closed, it is not recommended to create a new Opportunity for each customer account every month as the volume of Opportunities would likely get unmanageable.

Assets

- There is an AppExchange app called "Convert Products to Assets" that creates Asset records from Product Line Items on an Opportunity. This process is typically run upon Opportunity Stage set to Closed Won. Typically Assets display a record of products that have been purchased or installed at a customer location and can be linked to Products, Entitlements or Cases. They are often used to track "what products / services does my customer have?"
- However in general Assets are not well suited to recurring services, and managing recurring services by use of Renewals Opportunities and Orders is recommended.





Recurring Service Guidelines

- The salesforce Product Catalog can be used to manage recurring line items by Defining Quantity and Revenue Schedules.
- Consider renaming Orders as "Subscription Orders" to make the terminology more relevant.
- The entire Quote-Order-Contract process varies by company, and may require partner apps such as Generate Orders, PDF Converter, or other apps most often found on the AppExchange Your specific types of products and services will dictate linking Orders to either Contracts or Accounts.
- In most cases you create the Order or Contract when the Opportunity Stage is set to 'Closed Won'.
- Forecasting and Opportunity Pipeline Reports can support most needs for Revenue and MRR.
- When extending the process to link from Order to Fulfillment, ERP system and Billing applications:
 - Some accounting systems require Closed Opportunities to trigger monthly invoices check with your billing system/vendor on their requirements to trigger billing.
 - o Consider the configuration of your Opportunities, Orders and Contracts of how you invoice and provide support
 - More complicated types of services may have Revenue Recognition impacts best to verify with Finance Teams to understand potential impacts on Finance and Revenue.
 - There is a good list of AppExchange partner apps that can handle subscriptions, billing, invoices, payments and renewals. Simply search for "renewals", "recurring" or "subscriptions" on www.appexchange.com.

AppExchange Apps

The Salesforce data model can be extended using declarative point-and-click configuration – objects, fields, validations, workflow, etc. However there are situations when Partner Apps or more extensive customizations may be required to support more complex processes or functionality. These may include:

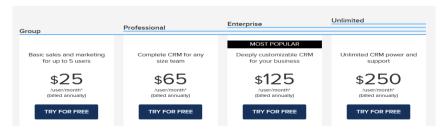
- Creating Orders and Service Contracts directly from Opportunities
- Create Opportunities from Service Contracts
- Leverage the salesforce API and integration/link to billing systems
- Cloud-based subscriptions, renewals to also include billing, and invoicing
- Credit Card payment processing or Shopping cart functionality
- When the complexity of your subscription offering includes managing Add-ons, Upgrades, Downgrades, Renewals, Cancellation penalties, Usage-based billing, etc.

Partner Apps for Recurring Services and Billing

In fact, Subscriptions, Orders and Contracts can get quite complicated. The following are 4 areas that you should review – and if any of these areas pose significant pain or worry in being able to run your subscription business, you may want to assess 3rd party applications from salesforce partners . . .

1) Pricing Sophistication

Pricing sophistication involves the degree of pricing complexity you have when defining your products. Do you charge a set amount in a price book for each product, or does your product have separate types of charges such as initial setup or 1 time charges, as well as a recurring charge component. Pricing



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Sophistication also occurs when you need to start accounting for Free Trials or Paid Pilots, Managing Product Add-Ons or Upgrades, or when your product offerings evolve to include Pricing Tiers, Volume-based pricing, Product Bundles, or Usage-based charges (for example you get 80 Gb of data/month included in monthly plan but pay \$2/Gb over that).

Salesforce.com provides aspects of this type of pricing where customers are charged a per user/month rate depending on edition, but also offers enterprise-based pricing or per-unit pricing for other types of services.



2) Subscription Complexity and Change

The 2nd area is focused on Subscription Complexity and how often do the recurring services that customers subscribe to change? Topics to be aware of include managing Amendments or changes to the subscriptions by adding, revising or upgrading products, determining changes in total contract value or monthly recurring revenue (this frequently impacts sales commissions) and preparing Change Quotes & Orders.

harge Name	Туре	Model	List Price	Discount	Effective Price	Quantity	UOM	Period	List Total	Total	Actions
nitial Quarterly I&R-Charge	One-Time	Flat Fee Pricing	25000.00	10.00%	22500.00				25000.00	22500.00	
luarlerly:R&R ee	Recurring	Flat Fee Pricing	25000.00	5.00%	23750.00			Quarter	25000.00	23750.00	
Ratings-and Reviews-Monthly	Usage	Tiered with Overage Pricing	-		0.25		Review	Month			
					Unde	elete					
harge Name		Туре	Model	List Price	Discount	Effective Price	Quantity	UOM	Period	List Total	Total
nnual R&R Fee		Recurring	Flat Fee Pricing	80000.00	10.00%	72000.00			Annual	80000.00	72000.00
nitial Annual R&R	R Charge	One-Time	Flat Fee Pricing	80000.00	0.00%	80000.00				80000.00	80000.00
tating and Revie	w Monthly	Usage	Tiered with Overage Pricing			0.25		Review	Month		
					Edit Delete						
harge Name		Туре	Model	List Price	Discount	Effective Price	Quantity	UOM	Period	List Total	Total
forthly SEO		Recurring	Flat Fee Pricing	2500.00	5.00%	2375.00			Month	2500.00	2375.00
					Edit Delete						
					Add More Produ	ects					
anges vs. Origin	al										
cription										Total Change	Actions
led Product										+152000.00	Undo
noved Product										-46250.00	Undo

3) Billing & Payments

Billing and Payments are managed through 3rd party applications outside of salesforce. If your billing requirements are such that you need to allow for proration of services (a 12 month contract pro-rated over 8 months for example), Co-termination of 2 or more subscription services so they terminate and renew at the same time, or support for billing to multiple-accounts (ie the service is delivered to subsidiary companies but billed to the parent), then your billing system needs to support this. These items are mentioned here simply because



in most cases viewing subscriptions in salesforce is a key requirement.

4) Analytics

Finally when you start to offer more complicated products and services, the level of reporting becomes more important. Now its no longer a forecast based on Opportunity Close dates, but you will need to consider other customer reports such as Opportunity pipeline or contracted value based on monthly recurring schedules, MRR and delta MRR to assess impacts of subscription changes, upcoming renewals, and churn management. To run these reports in



salesforce there should be good synchronization or integration with salesforce so that the billing, change orders, payments and other data are integrated and stored in salesforce to support these key reports. Often times the reporting requirements will drive the design and by extension, the selection of 3rd party applications that may be needed.



Recurring Services Partner Apps

As you have seen supporting more complex subscription requirements can become complicated and advanced applications targeted to provide specific functionality may be required. Fortunately salesforce has a thorough list of vendors that provide good integration with salesforce and whose applications are available on the AppExchange. The following provides just a quick summary – please feel free to go to www.appexchange.com and investigate solutions that will fit your requirements:

Recurring Services Partner Apps (some examples)

	Vendor	Description
	AAkonsult Payments	Online Payments, Memberships, Events & Receipting
aría	Aria	Recurring Revenue and Cloud Billing Platform
Gnoncommerce	Bill.ON	Invoicing, Billing, Contract Management, Subscriptions, Invoices, Dunning
\mathbf{B}^{\dagger}	BoonPlus	Create/co-term Assets, Entitlements, Service Contracts and Renewal Opportunities
(1)	FinancialForce	Cloud ERP, Billing, recurring, Financial Management
Go	goCloudz	Bundles, Product Hierarchy, Volume Pricing, Promotions, Quote PDF, E-Sign
Invoiceit	InvoiceIT	Quotes > Orders / Subscriptions > Invoicing > Payments
C	Kinetic Growth	Renewals, subscriptions, invoices, assets, quotes & recurring billing
Kugamon	Kugamon	Quote CPQ, Order & Revenue Management, Invoice with Payment Processing
	Kulturra	Invoice, Recurring Billing, Payments, Credit Card Integration
zuora	Zuora	Subscriptions, Recurring Billing, Payments, Quoting, Pricing, Renewals

Recurring Services Summary

This Knowledge Article summarizes the key configuration recommendations to support basic recurring services and serves to inform the reader on best practices, configuration options, and guidance on how to setup the salesforce instance to support recurring services. The following are quick summary highlights:

- The salesforce Product Catalog can model simple, recurring products with schedules
- Salesforce provides a strong and extensible data model supporting numerous objects that can be configured to support basic subscription services.
- Leverage Workflow and Reports/Dashboards for Contracts and Renewals
- Leverage Opportunity Reports for Quantity and Revenue Forecasts
- Leverage Subscription Orders and Contracts to manage subscriptions at the account level.
- Assess level of support and Entitlements desired and configure appropriately
- For more complicated business processes or requirements consider Partner Apps, Apex code, Visual Flow or API's to automate and create Orders, Contracts, Renewal Opportunities, etc.

It is advisable to review the complexity of your products, subscriptions, changes, billing, invoicing and other back office applications in the entire quote-order-cash process. Please feel free to contact your salesforce representative to discuss your situation in more detail.

