

# Cello How-To Guide

Cello Billing

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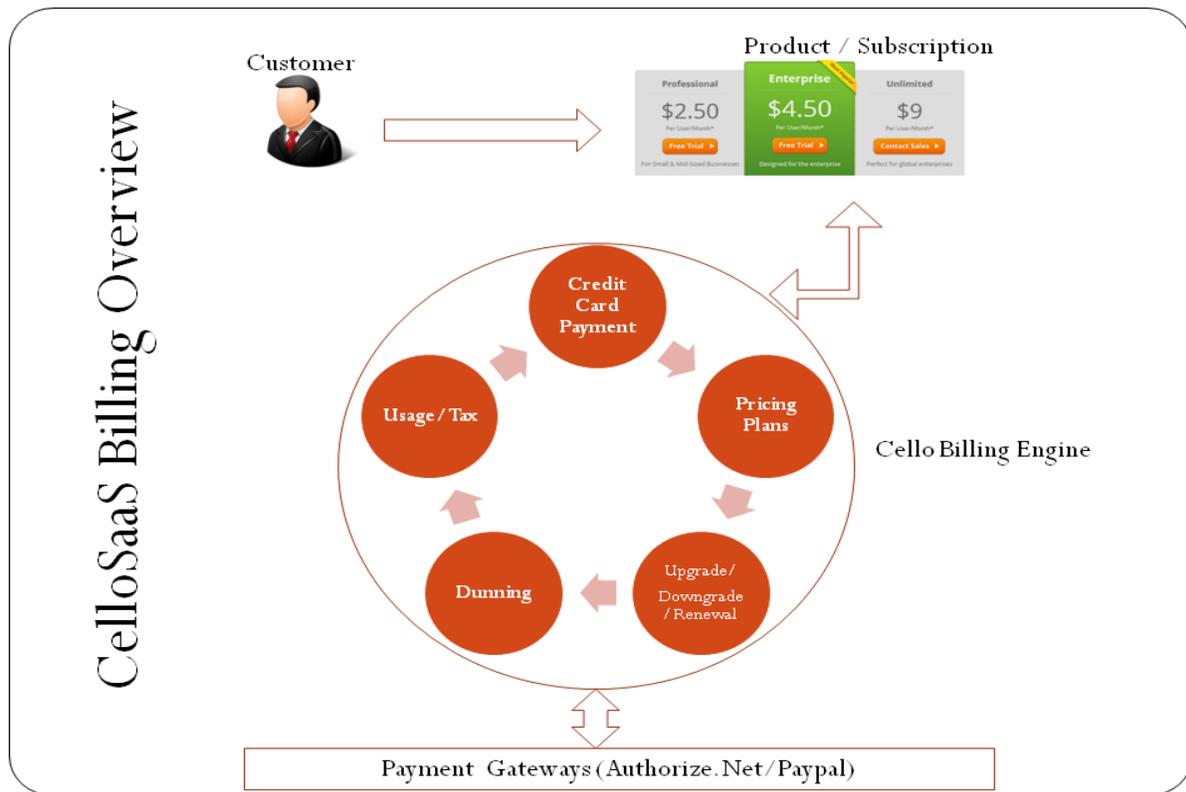
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## 1 Introduction to Cello Billing

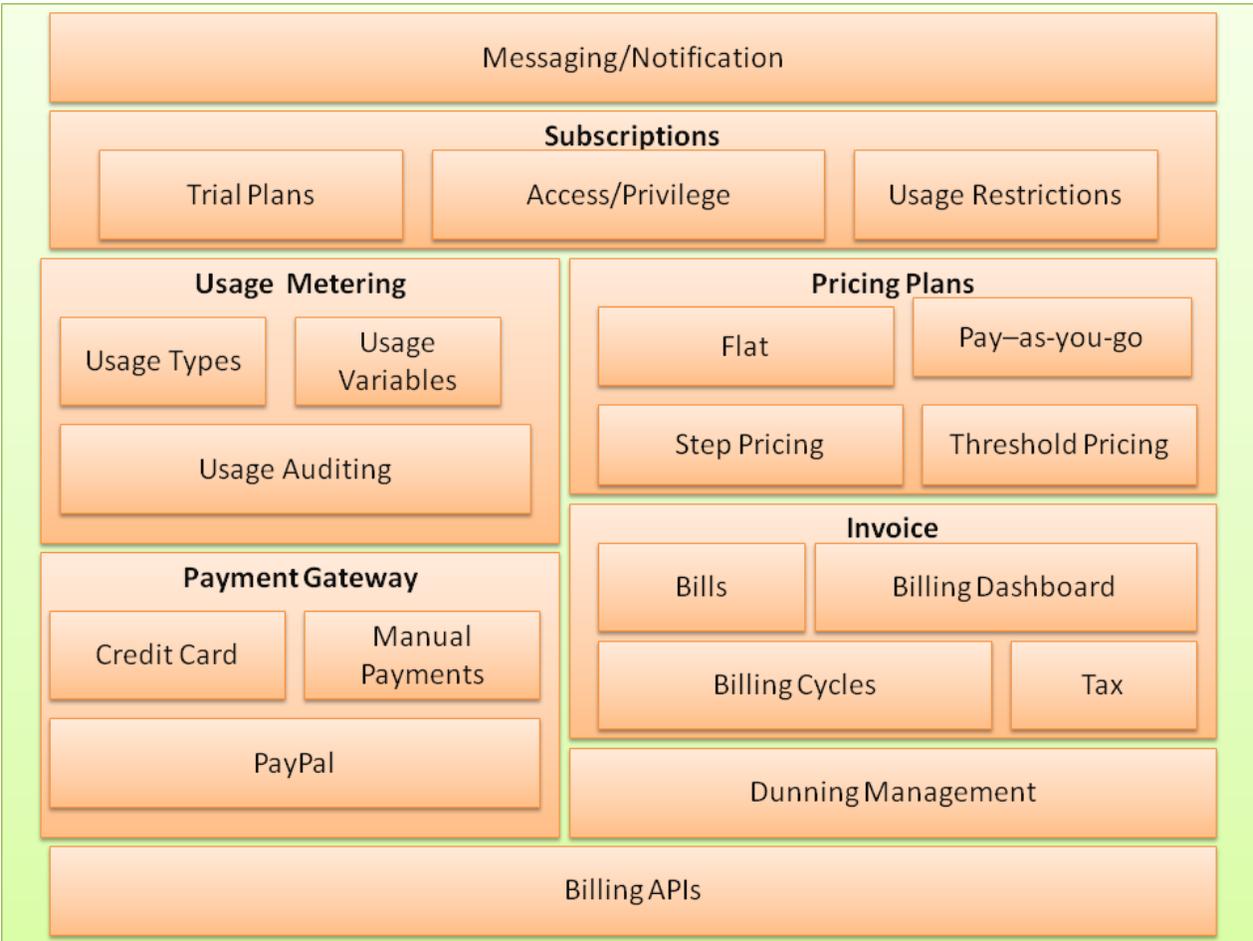
CelloSaaS Billing Engine is a standalone module that takes care of all the billing and invoicing needs of any Subscription based businesses. Cello automates the process of raising the invoices based on the frequencies set by the product owner, bill the customer based on the usage, apply taxes, Automatic Payment Collection, Notification etc. This document briefly covers the various components of CelloSaaS Billing Engine in detail.



### CelloSaaS Billing Module Overview

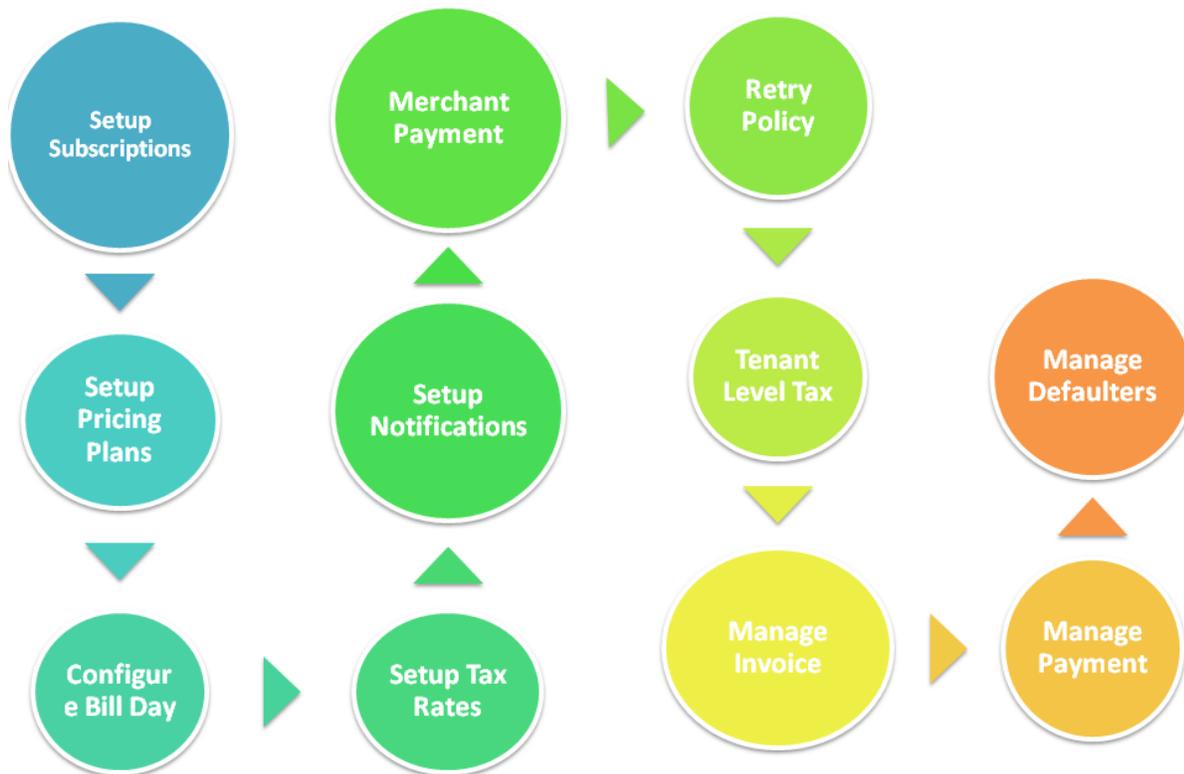
Although, Billing Engine is a standalone module, it works well with other features such as Subscription and Tenant Management features of Cello. Billing Engine is integrated with Subscription module of Cello by default, i.e. when a subscription plan is created, it can be simply hooked with billing plan to raise invoice based on the frequency set by the Product owner.

**1.1 Components of Cello Billing Engine**



**1.2 CelloSaaS Billing Overview**

Below are the step by step processes to enable Billing with CelloSaaS.



- Step 1: Setup Subscriptions, [Refer here](#).
- Step 2: Setup Pricing Plans, [Refer here](#).
- Step 3: Configure the Bill Day, [Refer here](#).
- Step 4: Setup General Tax Rates, [Refer here](#).
- Step 5: Setup Notifications Template, [Refer here](#).
- Step 6: Configure Merchant Payment Settings, [Refer here](#).
- Step 7: Configure Payment Retry, [Refer here](#).
- Step 8: Configure Tenant Tax Rates, [Refer here](#).
- Step 9: Manage Invoice, [Refer here](#).
- Step 10: Manage Payment, [Refer here](#).
- Step 11: Manage Defaulters, [Refer here](#).

### ***1.3 Introduction to Subscription Management***

Refer “[Subscriptions Management](#)” document.

### ***1.4 Introduction to Pricing Management***

Refer “[Pricing Plans](#)” document.

## ***1.5 Introduction to Usage Variables***

Refer "[Usage Variables](#)" document.

## ***1.6 Types of Billing***

Techcello 2 major and popularly used billing models, they are

1. Pre-paid billing
2. Postpaid billing

### ***1.6.1 Pre-Paid Billing***

Get started [here](#).

### ***1.6.2 Post-Paid Billing***

Post-paid billing works quite opposite to the pre-paid billing primarily in terms of invoicing and charging the customer. In postpaid, the cost of the subscription plan will be charged after the billing cycle. Like pre-paid, the customer will not be forced to provide the payment details if the subscription plan contains free trial period, but if the subscription plan doesn't contain any free period, the customer must provide the Payment details upfront in order to subscribe to the product.

The significant difference between post-paid and pre-paid is the Billing & Invoice Dates. In pre-paid, the day when the customer enters into the paid subscription date will be considered as the Billing & invoice date where as in post-paid there will a fixed Billing & invoice date for all the customers who use that particular billing cycle. This will explained in detail [here](#).

## ***1.7 Introduction to Billing Frequency/Cycle***

The billing frequency/cycle is the period of time between billings. A billing cycle may start on the 1st day of the month and end on the 30th day of the month. Or, it may go from the 15th of one month to the 15th of the next. Billing cycles are varying lengths, ranging from monthly, quarterly, Semi Annual and Annual.

During the billing cycle all feature consumptions and usages are posted to your account. At the end of the billing cycle, you are billed for all used charges and fees made during the billing cycle.

TechCello supports all the commonly used billing frequencies, such as

1. Monthly

2. Quarterly
3. Semi Annual
4. Annual

## 1.7.1 Introduction to Billing Frequency/Cycle

1. Create a Subscription plan.
2. Associate a pricing plan.
3. When creating a pricing plan choose the desired frequency and click on Save.

The screenshot displays the 'Manage Price Plans - Basic' interface in the CelloSaaS system. The form includes the following fields:

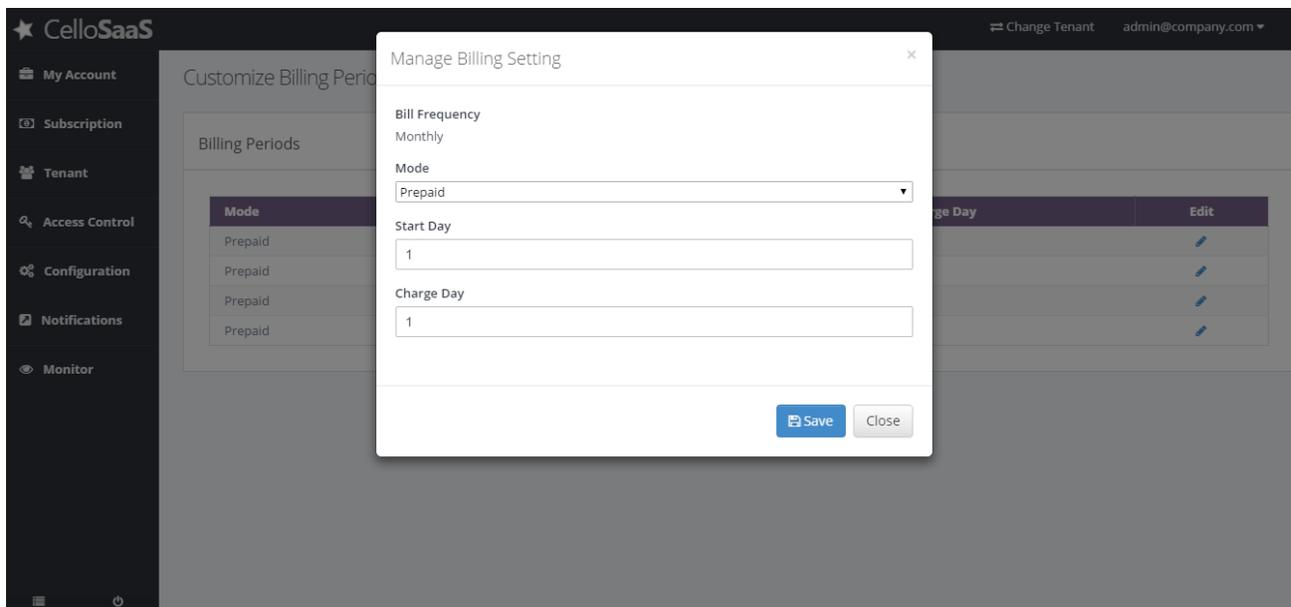
- Plan Name\*: Basic
- Plan Description: Basic
- Plan Price: 100 \$
- Frequency\*: Monthly

Below the form is a 'Line Items' section with a table:

Name	Description	Slab Usage Variable	Acted On Usage Variable	Calculation Type	View Slabs	Edit	Delete
User	user	User	User	Step Pricing	<a href="#">View</a>	<a href="#">Edit</a>	<a href="#">Delete</a>

## 2 Configuring Pre/Post Paid Billing

To configure Prepaid/ Postpaid billing go to Subscription-> Customize Billing periods. There are four billing periods which are provided inside Techcello Monthly, Quarterly, Semiannual and Annual. Each of these can either be set to a prepaid mode or a postpaid mode. A billing frequency can have only one mode of billing. By pressing on the edit button of a billing frequency, the mode of billing can be configured.



## 3 Payment Management

CelloSaaS billing systems is integrated with two major and widely used payment gateways. These Payment Gateways allows the product owners to accept payment using credit cards.

They Payment Gateways are

1. PayPal
2. Authorize.net

Product Owners can use either or both of these payment gateways to collect payments from Tenants.

The first step in the Process of Payment Management is Product Owners has to create Merchant account with Authorize.Net or PayPal.

**Note:** With Cello ver.4.3.1, the default currency accepted throughout the product is USD, but it can be configured to accept UK dollars as well.

## 3.1 How to enable Auto Payment

The product owners can configure the payment gateway related settings such as Application ID, Login ID, and Secret Key etc in the Payment API Settings page. [Refer the below screenshot].

Navigate to My Account >> Payment API Accounts

The screenshot displays the 'Payment API Accounts' configuration page in the CelloSaaS interface. The page is divided into two main sections: 'PayPal' and 'Authorize.NET'. Each section contains several input fields for configuration and a 'Save' button.

**PayPal Configuration:**

- PayPal Email\*: thiru.s-facilitator@techcello.com
- Application ID\*: APP-80W284485P519543T
- API User ID\*: thiru.s-facilitator\_api1.techcello.com
- API Password\*: 1368608651
- API Signature\*: AL.py.NPYo1QKJIOxBKDLs7vHKXVEANyZQRJHMH2iZjp6MhwkMLg
- Mode\*: Sandbox

**Authorize.NET Configuration:**

- Authorize.NET Email\*: jankeer.j@techcello.com
- API Login ID\*: 4k48gLLUV
- Transaction Key\*: 7dm79ZK2AGS7hb5K
- Mode\*: Test

For PayPal, Enter the following Details:

- PayPal Email ID
- Application ID
- API User ID
- API Password
- API Signature

For Authorize.net, Enter the following Details:

- Authorize.Net Email ID
- API Login ID
- Transaction Key

**Note:** Select the appropriate Setup Mode i.e. SANDBOX or LIVE and update the Credentials. To Create Sandbox \$ Merchant Account, refer to below urls

Click on Submit to save the details.

## 3.2 PayPal Merchant Account

To open a merchant account with PayPal Payment Gateway, refer PayPal's Knowledgebase <https://www.paypal.com/in/webapps/mpp/merchant>. PayPal has a robust sandbox/testing setup allows you to create testing Merchant account and other related settings.

Sandbox PayPal Account: <https://developer.paypal.com/>

Real Merchant Account: <https://www.paypal.com/in/webapps/mpp/merchant>

Note: It is recommended to use Sandbox Mode during the development and Testing Phase and when moving to Production it is mandatory to change it to LIVE.

## 3.3 Authorize.net Merchant Account

Product owners could setup Merchant account with Authorize.Net and activate the merchant account. <http://www.authorize.net/solutions/merchantsolutions/onlinemerchantaccount/>

**Note:** Once the Payment API details configured using the above screen, the respective payment Gateways are immediately contacted by the Cello Billing engine then validated and saved.

**Things to check before you start charging your customers:**

- Make test payments using real cards on your live payment gateway and confirm that it is successful. You can always void or refund these transactions.
- Verify that all your site and product configuration settings are setup correctly.
- Make sure that the right events have been enabled for email notifications.

## 3.4 How to make Manual Payment

Manual payment refers to the payments done offline. For example, Tenants might want to pay the bills offline in spite of having of the Auto Payment mechanisms. For such situations manual payments facility can be helpful for Administrators to accept Offline Payments. The offline mode payment could be anyone of the methods. They are

- Pay by check, cash or at the door
- Bank Transfer, C.O.D. or Mailed Payment
- Any other payment methods

When the application administrator receives the payment in personal / offline or if the administrator wants to make some adjustments in the invoice, the Product administrator can update the invoice with the appropriate information about the payment received, mode, date and time of when he received the payment etc.

# How-To – Cello Billing Management

Step1: Navigate to Subscription>> Client Bills

Step2: Select the specific Tenant using the Context menu on the top

Step3: Click on the Edit icon on the particular Invoice

**Account Summary**

Tenant Name	PetStore	Total Bills	1
Email	NA	Total Amount	\$135.00
Phone	NA	Total Paid	\$120.00
Package	Demo Package 1	Overdue Amount	\$15.00
Price Plan	50% off		
Subscription Period	13/02/2014 13:15		

**Current Bill Statement**

Invoice No#	Bill Period	Invoice Date	Due Date	Bill Amount
132	01/04/2014 - 01/05/2014	27/11/2014	01/05/2014	\$157.50

**Charge Details**

Item Name	Description	Amount
Demo Package 1 - 50% off	Period: 01/04/2014 to 01/05/2014	\$100.00
State Tax	State Tax	\$20.00
VAT &&&&&	VAT	\$15.00
Federal Tax	Federal Tax	\$10.00
Local Tax	Local Tax	\$12.50

**Previous Bills**

Invoice No#	Bill Period	Amount	Paid	Edit	View
2	01/03/2014 - 01/04/2014	\$135.00	\$120.00		

**Usage Statistics**

Usage Name	Max Limit	Used	Remaining
Project Usage	5	0	5
User	5	1	4

## Client Bills

Step 4: Click on the Add Payment button in the Edit Invoice Page

Step 5: Select the appropriate Mode i.e. Card/Cash/Manual/Credit

Step 6: Fill the other details such as Date/Amount /Notes and click on Save

← Edit Invoice Save

**CelloSaaS**  
Company

1 Cross Street  
WA  
- 12345

+1-323-232-3232  
demo@demo.com

**INVOICE**

April 05, 2014  
Invoice no#2  
Period: 01/03/2014 - 01/04/2014

**PetStore**

Item Name	Description	Amount
Demo Package 1 - 50% off	Period: 3/1/2014 12:00 AM to 4/1/2014 12:00 AM	\$100.00
<b>Sub Total</b>		<b>\$ 100.00</b>

**Taxes**

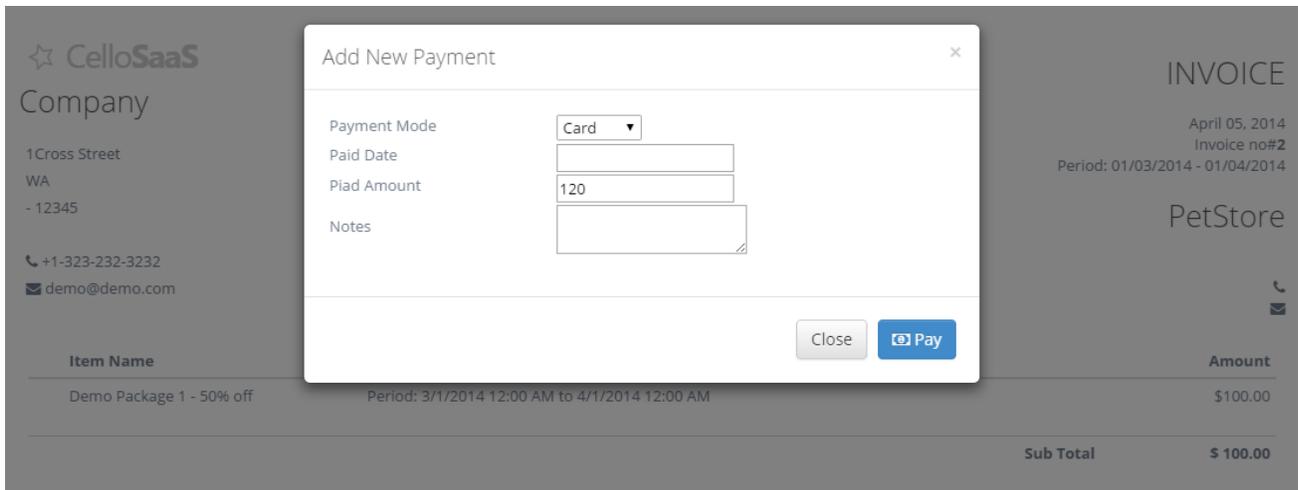
Item Name	Description	Amount
State Tax	State Tax	\$20.00
VAT	VAT	\$5.00
Federal Tax	Federal Tax	\$10.00
<b>Tax Total</b>		<b>\$ 35.00</b>
<b>Net Amount</b>		<b>\$ 135.00</b>

Payments + Add Payment

Mode	Date	Paid Amount	Notes
Manual	25/04/2014	\$120.00	Partial Payment

Notes

<p>Please find the cost-breakdown for the services used. Please make payment at your earliest convenience, and do not hesitate to contact me with any questions.</p><br/><p>Payment terms: to be received within 30 days.</p>

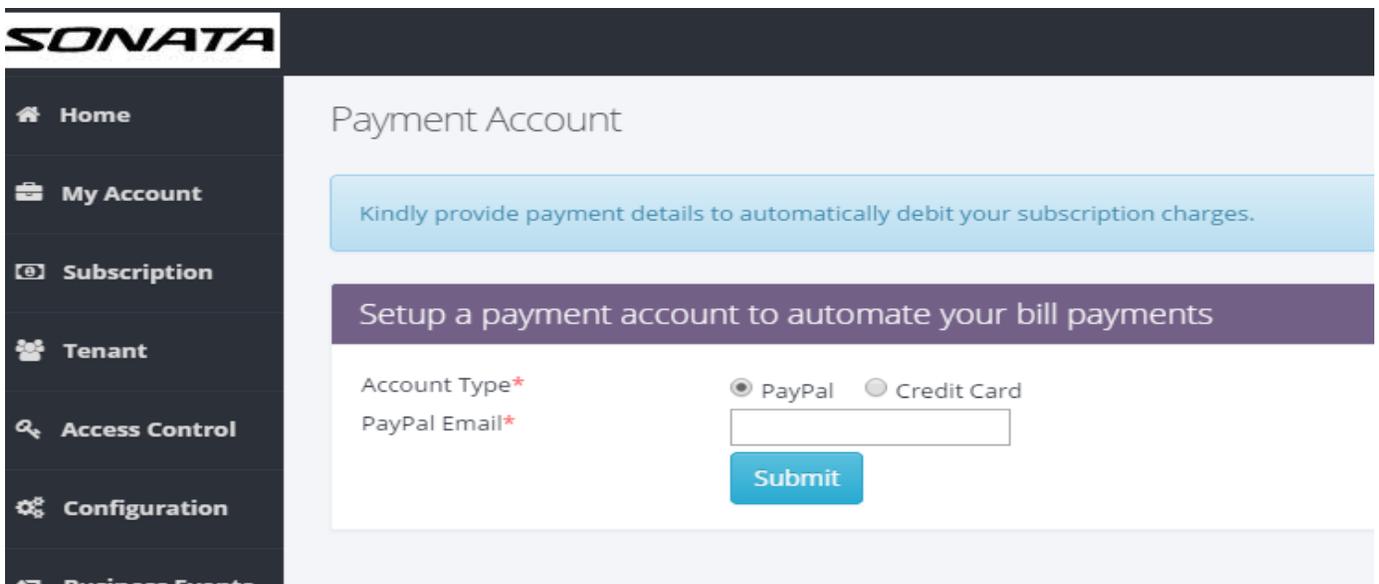


## 3.5 Tenant Payment Setup

Tenants who have subscribed to Paid Plans must update their Credit card details or setup PayPal Account details for automatic Payment deductions. For Tenants who are in Trial Mode and while nearing the trial expiration, the Tenant admin will receive notifications both in email as well as via the system notification (if enabled) for upgrading their subscription.

To navigate to the Credit Card Account page Go to My Account >>Setup Payment Account.

### 3.5.1 PayPal Account Setup



Enter the PayPal Account Email Credential and click on submit.

PayPal Preapproval

We have created a pre-approval request (Preapproval Key= PA-4E991432VF720802W). Approve the request by clicking the below button.

[Go to PayPal](#)

Note: Clicking the button will take you to PayPal site and after approval it will return to this application automatically!

PayPal sends a Pre-Approval Key to navigate to the PayPal Login Page to verify the account.

Refer [PayPal Knowledge base](#) to understand the Credit Card details update setup.

### 3.5.2 Credit Card Account Setup

Step1: Click on the Credit Card option in the Payment Account Page.

The screenshot shows the SONATA web interface. The top navigation bar includes the SONATA logo, 'App', and 'Trial ends in 91 days'. A left sidebar contains menu items: Home, My Account, Subscription, Tenant, Access Control, and Configuration. The main content area is titled 'Payment Account' and contains a light blue instruction box: 'Kindly provide payment details to automatically debit your subscription charges.' Below this is a purple header: 'Setup a payment account to automate your bill payments'. The form includes an 'Account Type\*' section with radio buttons for 'PayPal' and 'Credit Card', where 'Credit Card' is selected. A note states: 'Clicking on submit you will be redirected to Authorize.NET site where you can create credit card details! On completion click "Return" button to return to this site.' A blue 'Submit' button is located at the bottom of the form.

Step2: Fill the Credit Card Information

Step 3: Click on Submit

The screenshot shows the CelloSaaS USReseller web interface. The top navigation bar includes the CelloSaaS USReseller logo, user information 'Hi, admin@company.com', a language selector '[ USReseller ]', and a 'Sign Out' link. A secondary navigation bar contains links: Home, My Actions, My Account, Admin, Billing, Reporting, Manage Workflow, Manage Business Rules, and Manage Events. The main content area is titled 'Create Credit Card Account' and is divided into two sections: 'Credit Card Details' and 'Account Address Details'. The 'Credit Card Details' section includes input fields for 'Card Number \*', 'Expiration\*' (with MM-YYYY format), and 'CCV\*'. The 'Account Address Details' section includes input fields for 'Email\*', 'Name', 'City', 'State', 'Country', 'Street\*', 'Zip\*', and 'Phone'. At the bottom of the form are 'Submit' and 'Reset' buttons.



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### 3.5.3 Update Account/ Credit Card Details

Tenants can update their credit card details at any point of time via “Credit Card Account Page”. The updated Credit Card details will be used from the next Billing Cycle Onwards.

## 3.5.4 Credit Card Validation

CelloSaaS doesn't validate the provided credit card details by itself and leaves the responsibility to Integrated Payment Gateways i.e. Authorize.Net and PayPal. The respective Gateways validate the credit card whether it is tied to a valid account and can be successfully charged before it is saved to their database.

**Note:** In some cases, cardholders may see a temporary authorization for \$1.00 on their account after their card has been verified.

## 3.5.5 Authorize.net Credit Card Validation Response

Authorize.net payment gateway will return transaction results for all the transactions. The transaction response indicates whether the transaction was accepted or declined and includes information about the transaction.

## 3.5.6 Fields included in the payment gateway response are provided in the table below.

The field order applies only to AIM transactions. For SIM transactions, the transaction response fields are not necessarily sent in the exact order listed here. Developers are encouraged to use the name of the field in order to locate the correct response. If your code expects transaction response fields in a particular order, future updates to the SIM API may cause unexpected results from your code.

ORDER	FIELD NAME	VALUE	FORMAT	NOTES
1	Response Code	The overall status of the transaction	1 = Approved 2 = Declined 3 = Error 4 = Held for Review	

To view the complete list of response, refer

[http://www.authorize.net/support/merchant/Transaction\\_Response/Transaction\\_Response.htm](http://www.authorize.net/support/merchant/Transaction_Response/Transaction_Response.htm)

## 3.5.7 Payment History

Cello Billing system audits all the payments accepted through all methods i.e. Credit Card/Manual etc. To view the Payment History, Navigate to Admin>> Subscription>> Client Payment History

Navigation bar: My Account, Subscription, Tenant, Access Control, Configuration, Business Events, Notifications, Workflow, Reporting, Monitor

### Child Payment History

Tenant: All Status: ALL Transaction Id:

Invoice No:  From Date:  To Date:  Reset Search

Invoice No	Tenant Name	Type	Transaction Id	Date	Amount	Attempt	Status
1735	Acme, inc.	CreditCard	2201288511	11/5/2013 12:03 AM	\$154.96	1	COMPLETED
1730	DemoAccount	CreditCard	-	11/5/2013 12:03 AM	\$78.49	1	ERROR
1703	Acme, inc.	CreditCard	2199320244	10/5/2013 12:01 AM	\$154.96	1	COMPLETED
1700	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1699	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1698	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1697	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1696	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1695	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1694	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED

Show 10 entries Showing 1 to 10 of 425 entries

### 3.6 Payment Security

Cello billing system stores all the Payment account details settings in the Cello Database in the encrypted format and doesn't store in Clear text format for security reasons. While fetching back, the data will be again decrypted and rendered in the page. Developers have the flexibility to choose the type of encryption to be applied.

Cello billing system doesn't store or manipulate the Credit Card details received from the customer. As soon as the customer or product admin hits the save button on the Credit Card details page, all these details are stored in the Authorize.net server and not in the Cello Database. These Servers are highly protected and follows all sorts of Compliance Refer [Authorize.net](#) & [PayPal](#) PCI Compliance. This means your sensitive customer payment information is stored in a data centre that conforms to the highest standards set by the major credit card vendors, and have the necessary controls in place as dictated by the International services organization reporting standards.

A Tenant's credit card transaction can fail for various reasons. When the daily limit of the card has been exceeded, or the card has insufficient funds etc., the payment gateways will indicate Failure signals.

The Failed payments can be automated to retry multiple times, the process of retrying attempts to capture payments on invoices that are due is called Dunning.

CelloSaaS billing System automates this process and retries for a maximum of <<Defined Number>> times after which the payment will be stopped to invoice or left active and marked as unpaid.

### ***3.7 Configure Retry Frequency***

The frequency of Retry process can be configured globally using the Configuration file located inside the Billing Windows Service "**CelloSaaS.BillingWindowsService.exe**"; CelloSaaS will automatically mark the account unpaid after the successful execution of <<Configured number of retry>>.

Once the payment is made offline by any of the mode, the product admin can mark the payment collected using the dashboard using the manual adjustments [Refer Manual Payments].

```
<appSettings>
  <add key="MaxParallelThread" value="4" />
  <add key="BatchSize" value="20" />
  <add key="Interval" value="360000" />
  <add key="MaxPaymentRetry" value="3" />
  <add key="RetryIntervalInDays" value="2" />
  <add key="PreTrialEndNotificationDays" value="3"/>
```

### ***3.8 Transaction Failed Notifications***

On every failed transaction, Cello Notification Engine will send Transaction Failed Email Notifications automatically. CelloSaaS sends the series of email notification for each retry.

To change the content of the "Payment Failure Template", navigate to Admin>> Notifications>> Content Template and click on Manage Template.

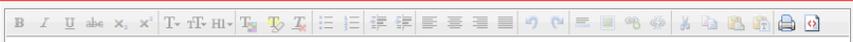
# How-To – Cello Billing Management

Show 10 entries Showing 1 to 1 of 1 entries

### Edit Template Details

Locale Name: en

Template\*



Dear {{Tenant.ContactDetail.FirstName}}, {{Tenant.ContactDetail.LastName}},  
Automated bill payment for Bill No #{{Invoice.InvoiceNo}} with \${{Invoice.Amount}} USD was failed with reason '{{PaymentAudit.Details}}'.

We will attempt to debit again in 2 days.  
Thank you for using CelloSaaS  
Regards,  
CelloSaaS Admin

## 4 Understanding Over dues

Overdue refers to the old dues/charges to be paid by the Tenants.

### 4.1 Admin view of over dues

Login as the Product Administrator Navigate to Subscription>> Child Bills>> Select a Tenant in the Context menu [Refer below Screen shot]

Over dues are highlighted in red colour in the Previous Bills Container.

The screenshot displays the 'Manage Child Bills' interface. At the top, there is a search bar for 'Tenant' with 'PetStore' selected. Below this is the 'Account Summary' section, which includes fields for Tenant Name, Email, Phone, Package, Price Plan, and Subscription Period, alongside financial metrics like Total Bills, Total Amount, Total Paid, and Overdue Amount. The 'Current Bill Statement' section shows a table with columns for Invoice No#, Bill Period, Invoice Date, Due Date, and Bill Amount. The 'Charge Details' section lists items such as Demo Package 1 - 50% off, State Tax, VAT, Federal Tax, and Local Tax with their respective amounts. The 'Previous Bills' section contains a table with columns for Invoice No#, Bill Period, Amount, Paid, Edit, and View. The first entry in this table is highlighted in red, indicating an overdue bill.

Invoice No#	Bill Period	Amount	Paid	Edit	View
2	01/03/2014 - 01/04/2014	\$135.00	\$120.00		

### 4.2 Tenant view of over dues

Login as the Tenant Administrator Navigate to My Account>> My Bills [Refer below Screen shot]

Over dues are highlighted in red colour in the Previous Bills Container.

[My Account](#)
[Subscription](#)
[Tenant](#)
[Access Control](#)
[Configuration](#)
[Business Events](#)
[Notifications](#)
[Reporting](#)
[Monitor](#)

## My Bills

### Account Summary

Tenant Name	Acme Corp <a href="#">✉ belva.majewski@techcello1.com</a> <a href="#">☎ +1-903-766-2159</a>	Total Bills	90
Package <a href="#">View History</a>	Basic Package	Total Amount	\$12,556.76
Price Plan	Basic Plan	Total Paid	\$0.00
Subscription Period	5/17/2006 12:00 AM	Overdue Amount	\$12,556.76

### Current Bill Statement

[View](#) [Download](#)

Previous Balance	Invoice No#	Bill Period	Invoice Date	Bill Amount	Total Amount Payable	Due Date
\$12,556.76	1754	11/1/2013 - 12/1/2013	11/6/2013	\$154.96	\$12,711.72	12/5/2013

### Current Bill Charge Details

Item Name	Description	Amount
Basic Package - Basic Plan	Period: 11/1/2013 12:00 AM to 12/1/2013 12:00 AM	\$149.00
VAT 4%	VAT 4%	\$5.96

### Previous Bills

Invoice No#	Bill Period	Amount	Paid	View
1727	10/1/2013 - 11/1/2013	\$154.96	\$0.00	<a href="#">View</a>
1702	9/1/2013 - 10/1/2013	\$154.96	\$0.00	<a href="#">View</a>
342	8/1/2013 - 9/1/2013	\$149.00	\$0.00	<a href="#">View</a>
337	7/1/2013 - 8/1/2013	\$149.00	\$0.00	<a href="#">View</a>
332	6/1/2013 - 7/1/2013	\$149.00	\$0.00	<a href="#">View</a>
328	5/1/2013 - 6/1/2013	\$149.00	\$0.00	<a href="#">View</a>
324	4/1/2013 - 5/1/2013	\$149.00	\$0.00	<a href="#">View</a>
320	3/1/2013 - 4/1/2013	\$149.00	\$0.00	<a href="#">View</a>
315	2/1/2013 - 3/1/2013	\$149.00	\$0.00	<a href="#">View</a>
311	1/1/2013 - 2/1/2013	\$149.00	\$0.00	<a href="#">View</a>

Show 10 entries Showing 1 to 10 of 90 entries

## 5 Payment History

### 5.1 Product Admin view of Payment History

Cello tracks all the payment transactions for all the modes of payment i.e. Auto Payment through Credit Card, Manual Payment etc. To View the Payment History

Login as Product Administrator, Navigate to Subscriptions>> Client Payment History

Payment History Page offers Filter Condition to search payment audit based on various Parameters. They are

1. By Tenant Name
2. By Status
3. By Transaction ID
4. Invoice Number
5. Start & End Date

My Account Subscription Tenant Access Control Configuration Business Events Notifications Workflow Reporting Monitor

### Child Payment History

Tenant: All Status: ALL Transaction Id:

Invoice No:  From Date:  To Date:  Reset Search

Invoice No	Tenant Name	Type	Transaction Id	Date	Amount	Attempt	Status
1292	Extensive Enterprise	Other	-	11/6/2013 6:13 AM	\$499.00	0	COMPLETED
1735	Acme, inc.	CreditCard	2201288511	11/5/2013 12:03 AM	\$154.96	1	COMPLETED
1730	DemoAccount	CreditCard	-	11/5/2013 12:03 AM	\$78.49	1	ERROR
1703	Acme, inc.	CreditCard	2199320244	10/5/2013 12:01 AM	\$154.96	1	COMPLETED
1700	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1699	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1698	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1697	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1696	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED
1695	Praxis Corporation	Other	-	9/26/2013 1:51 PM	\$499.00	0	COMPLETED

Show 10 entries Showing 1 to 10 of 426 entries

## 5.2 Tenant Admin view of Payment History

Like Product Administrators, Tenant Administrators can also view the payment history of their past payments.

Navigate to My Account >> Payment History

ACME Corp admin@company.com | [ Acme Corp ]

My Account Subscription Tenant Access Control Configuration Business Events Notifications Workflow Reporting Monitor

### My Payment History

Status: COMPLETED Transaction Id:

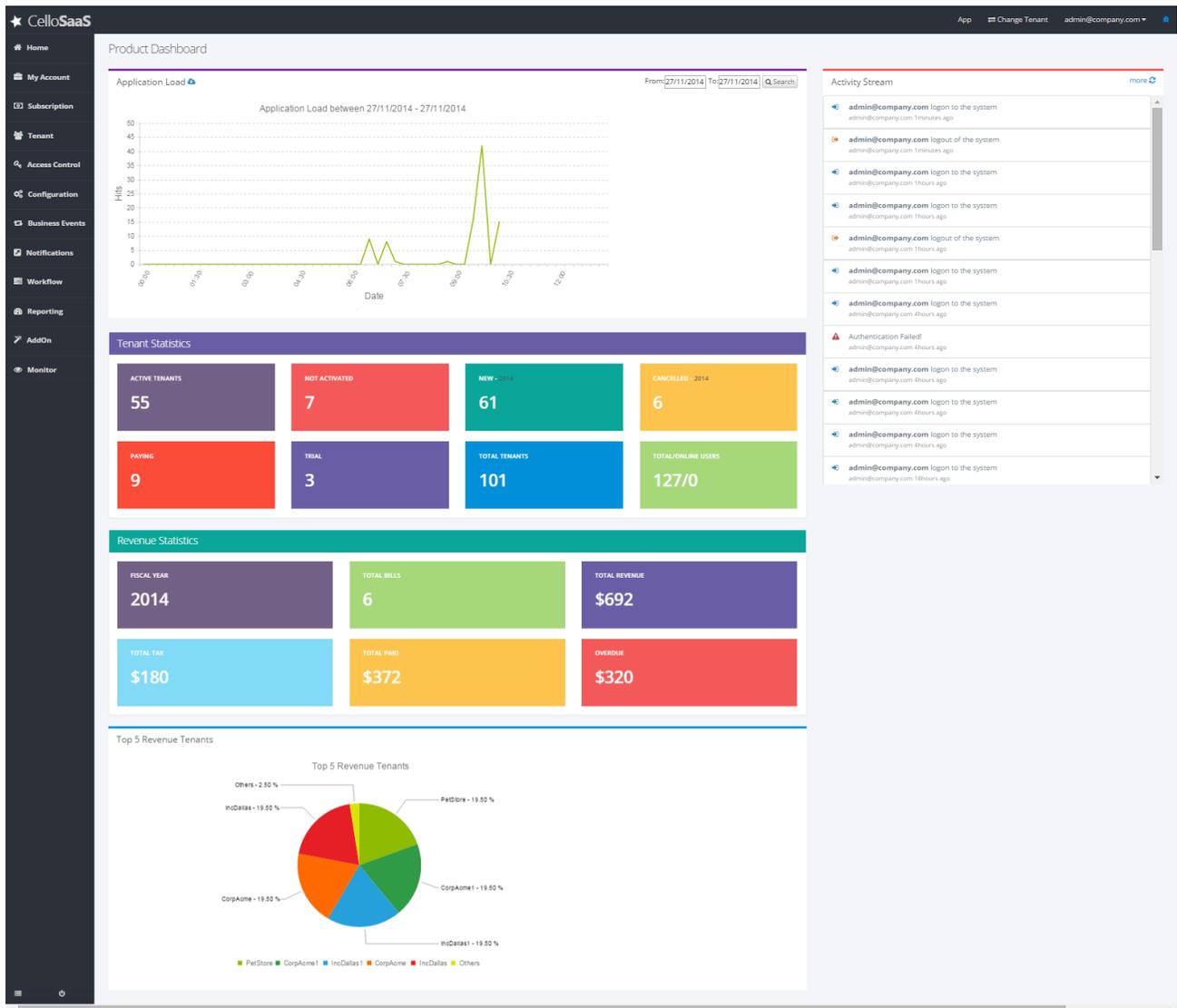
Invoice No:  From Date:  To Date:  Reset Search

## 6 Billing Dashboards

Billing Dashboard gives the overview of the Cello billing system. The billing dashboard comprises of 4 major blocks. They are

1. Tenant Revenues based on Year (Revenue Chart)
2. Revenue by Tenants
3. Top 5 Revenue making Tenants
4. Revenues Trend

Navigation >> Billing >> Dashboard



## 6.1 Search Client Bills

CelloSaaS billing system provides an effective billing search mechanism to search the current and past billing information. The billing search feature enables the product admin to search with Tenant, Status, from and to invoice date details.

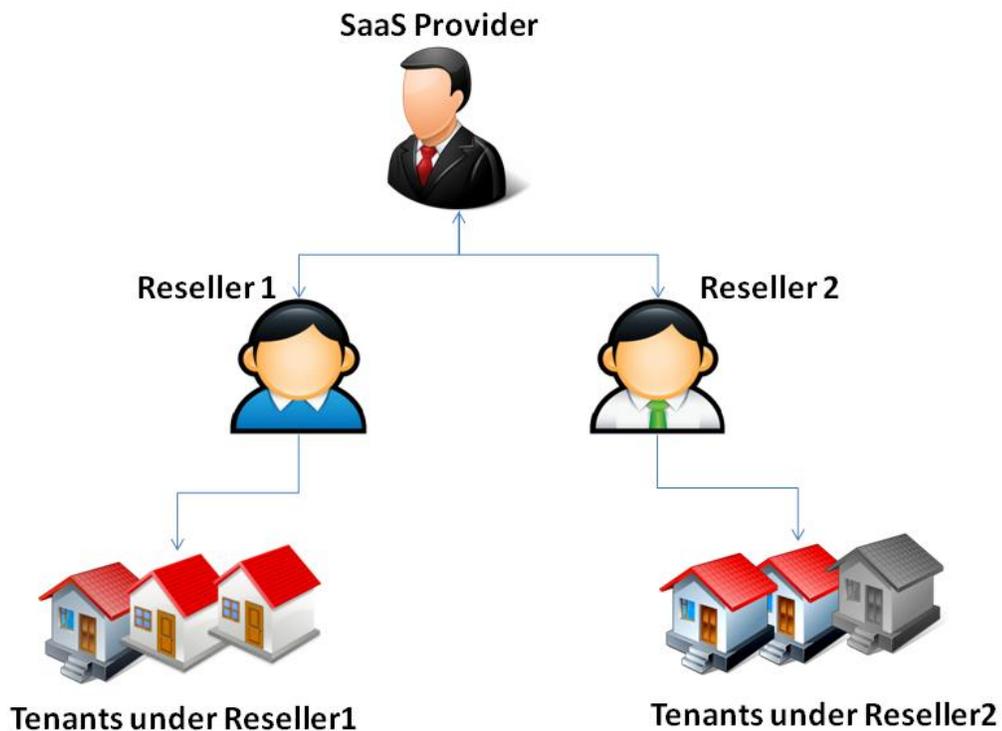
Login as Product Administrator, Navigate to Subscription >> Search Client Bills (Application only for Product Admin & Tenant Hierarchy Scenarios)

No#	Tenant	Invoice Date	Start	End	Amount	Paid	Status	Audit	View	
7	Dallas inc	05/04/2014	28/03/2014	01/04/2014	\$17.42	\$17.42	PAID			
<input type="checkbox"/>	6	IncDallas	05/04/2014	01/03/2014	01/04/2014	\$135.00	\$0.00	UNPAID		
<input type="checkbox"/>	5	CorpAcme	05/04/2014	01/03/2014	01/04/2014	\$135.00	\$0.00	UNPAID		
<input type="checkbox"/>	4	IncDallas1	05/04/2014	01/03/2014	01/04/2014	\$135.00	\$100.00	UNPAID		
<input type="checkbox"/>	3	CorpAcme1	05/04/2014	01/03/2014	01/04/2014	\$135.00	\$135.00	PAID		
<input type="checkbox"/>	2	PetStore	05/04/2014	01/03/2014	01/04/2014	\$135.00	\$120.00	UNPAID		

## 7 Billing in Reseller Model

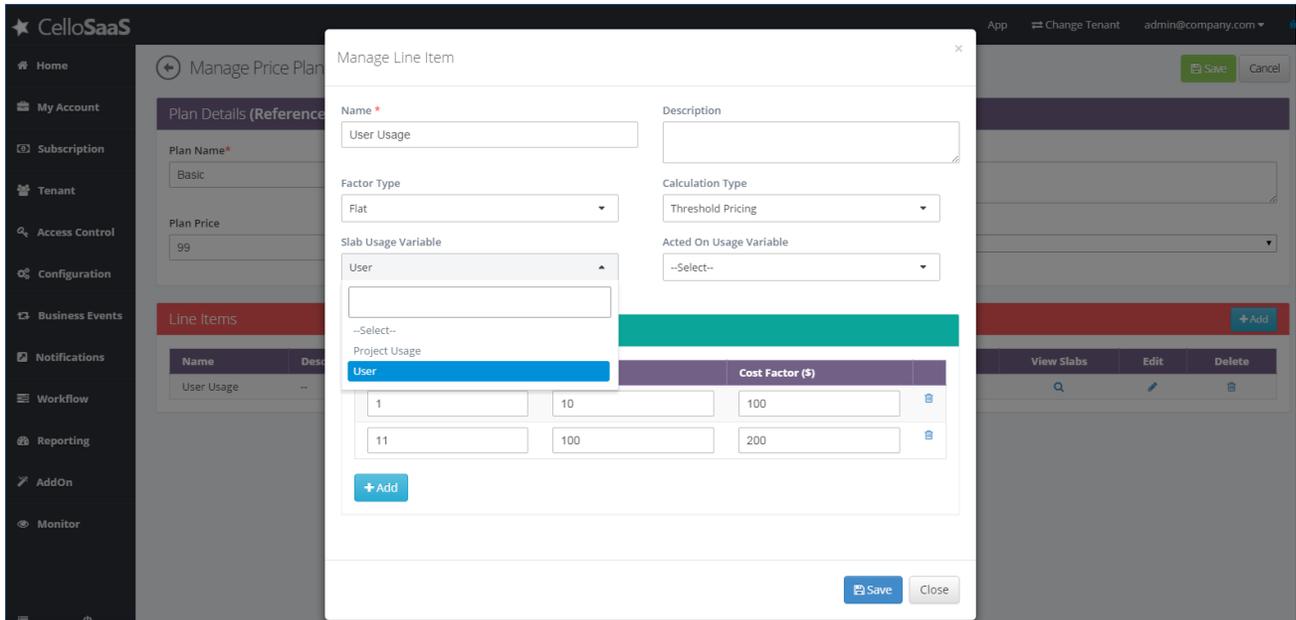
TechCello provides **Tenant Hierarchy**

[http://www.techcello.com/downloads/kb/how\\_to\\_tenant\\_hierarchy\\_management.pdf](http://www.techcello.com/downloads/kb/how_to_tenant_hierarchy_management.pdf), a feature which enables the SaaS owner to sell the product in a Reseller/Distributor Model. In the Reseller Scenarios, the reseller tenant may or may not use the product himself and simply sell the product to other customers. In this scenario, Reseller might pay a percentage of the revenue to the Product Provider made by sub selling the product to its customers.



To identify a total month on month revenue made as well as the Total year revenue made by all the tenants of the Reseller, Cello provides two default variables. They are

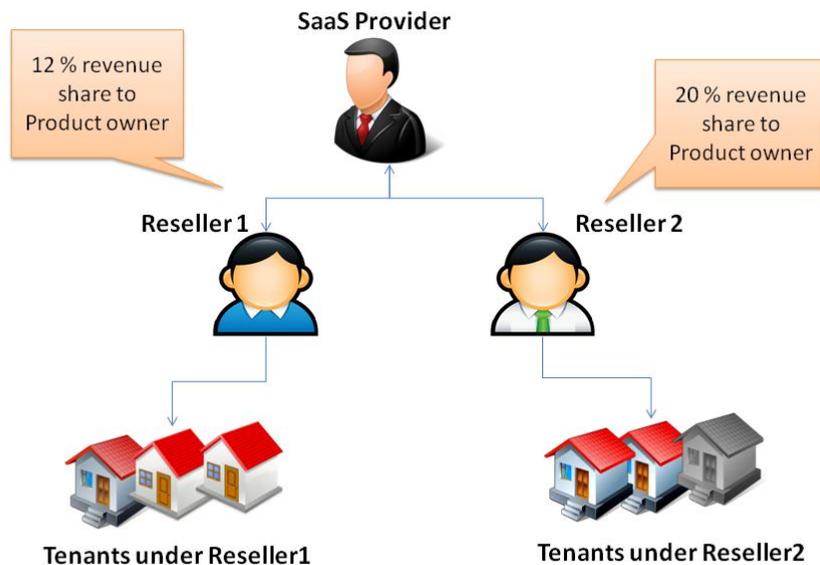
1. **BillingInvoiceAmount** – Refers to current month total revenue made from all the Tenants under a reseller
2. **BillingInvoiceYTD** – Refers to yearly total revenue made from all the Tenants under a reseller



Slab Usage Variable

## 7.1 Setup Pricing Plan for Reseller Tenant

Raising invoice for Reseller Tenant is different from a normal Tenant (without sub tenants), because for a normal tenant the pricing plan would be based on usage counters whereas for a reseller who has multiple tenants under him will be based on revenue share model. For example



To create a Pricing Plan for the Reseller tenant, follow the below steps, they are

1. Create A Subscription plan including the mandatory modules and Features, Refer Subscription Management.
2. Create a Price Plan with or without base cost. Refer below screenshot.

The screenshot shows the 'Manage Price Plans for Reseller Plan' interface in CelloSaaS. The top navigation bar includes 'My Account', 'Subscription', 'Tenant', 'Access Control', 'Configuration', 'Business Events', 'Notifications', 'Workflow', 'Reporting', and 'Monitor'. The main form contains the following fields:

- Plan Name \***: Reseller - Price Plan
- Plan Description**: Reseller - Price Plan - 10 % Revenue Share
- Skip Billing \***:
- Plan Price \***: 999 USD / Month

Below the form is a 'Line Items' section with an '+ Add' button. A message at the bottom of the form area states: 'Line items not yet added!'.

3. Let's see how to create a Price Plan for the below Scenarios

Consider the following Scenario,

## 7.1.1 Scenario1

Product owner is creating a Reseller Tenant and wants to get 20% revenue on month on month on whatever the revenue made by selling the product.

The Price Plan screen creation will be as follows:

- Select the Factor type as **“Each”**, which refers to **“Revenue Share”** on the total revenue made by the Reseller
- Choose the Calculation Type as **“Threshold”**
- Choose **“BillingInvoiceAmount”** variable for both **“Slab Usage Variable”** and **“Acted on Usage Variable”**
- While Defining the slab value, set the start value in 1 (in \$\$) and End Value must be empty i.e. infinity (refers to total revenue made), Set the Percentage value in the Cost Factor i.e 20%

**Manage Line Item**

Name \* Reseller - Price Plan Description Reseller - Price Plan with 20% revenue share

Factor Type Each Calculation Type Threshold Pricing

Slab Usage Variable BillingInvoiceAmount Acted On Usage Variable BillingInvoiceAmount

Slab Rates

Select "Billing Invoice amount for Monthly revenue share"

Start Value	End Value	Cost Factor (USD)
1		20

1 \$ - Infinite dollars, the revenue share will be 20 %

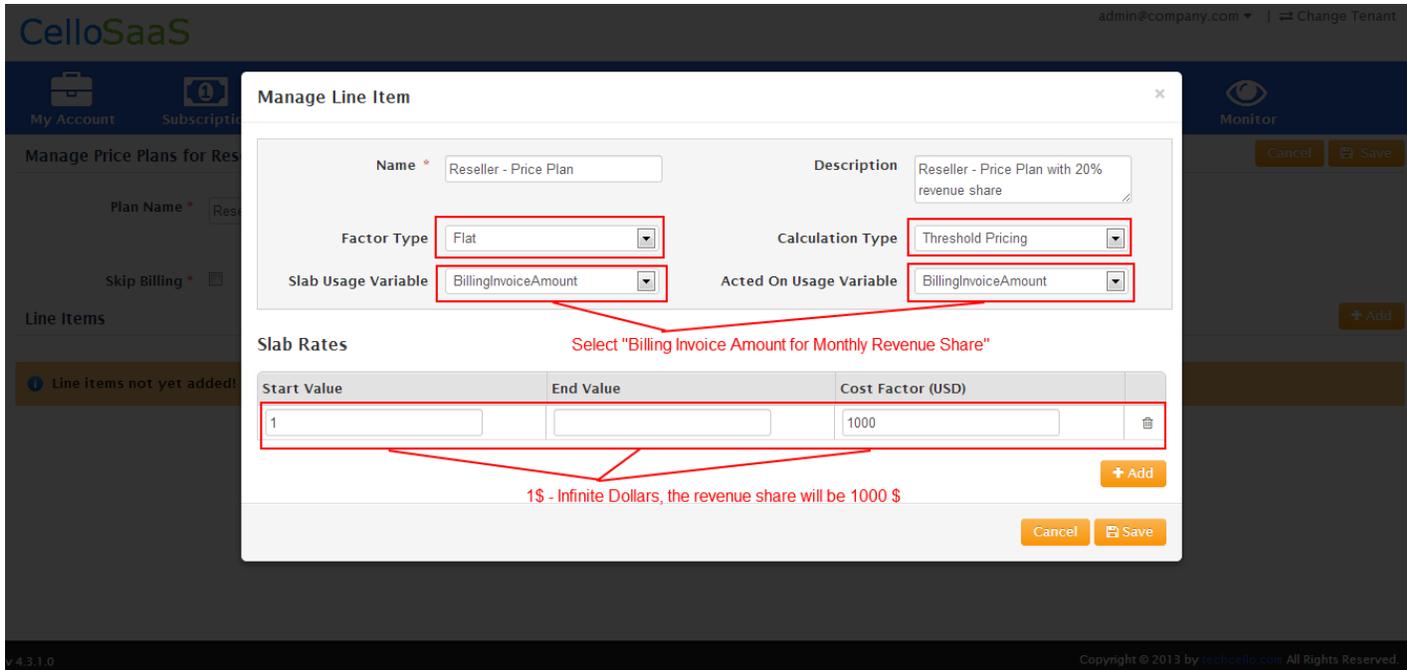
+ Add Cancel Save

## 7.1.2 Scenario2

Product owner is creating a Reseller Tenant and wants to get fixed revenue on month on month.

The Pricing Plan creation will be as follows:

- Select the Factor type as **"Flat"**, which refers to "Flat Cost" which has to be paid by the Reseller to the Product Owner.
- Calculation Type must be **"Threshold"**
- Choose **"BillingInvoiceAmount"** variable for both "Slab Usage Variable" and "Acted on Usage Variable"
- While Defining the slab value, set the start value in 1 (in \$\$) and End Value must be empty i.e. infinity (refers to total revenue made), set the value of Flat cost in the Cost Factor Field.



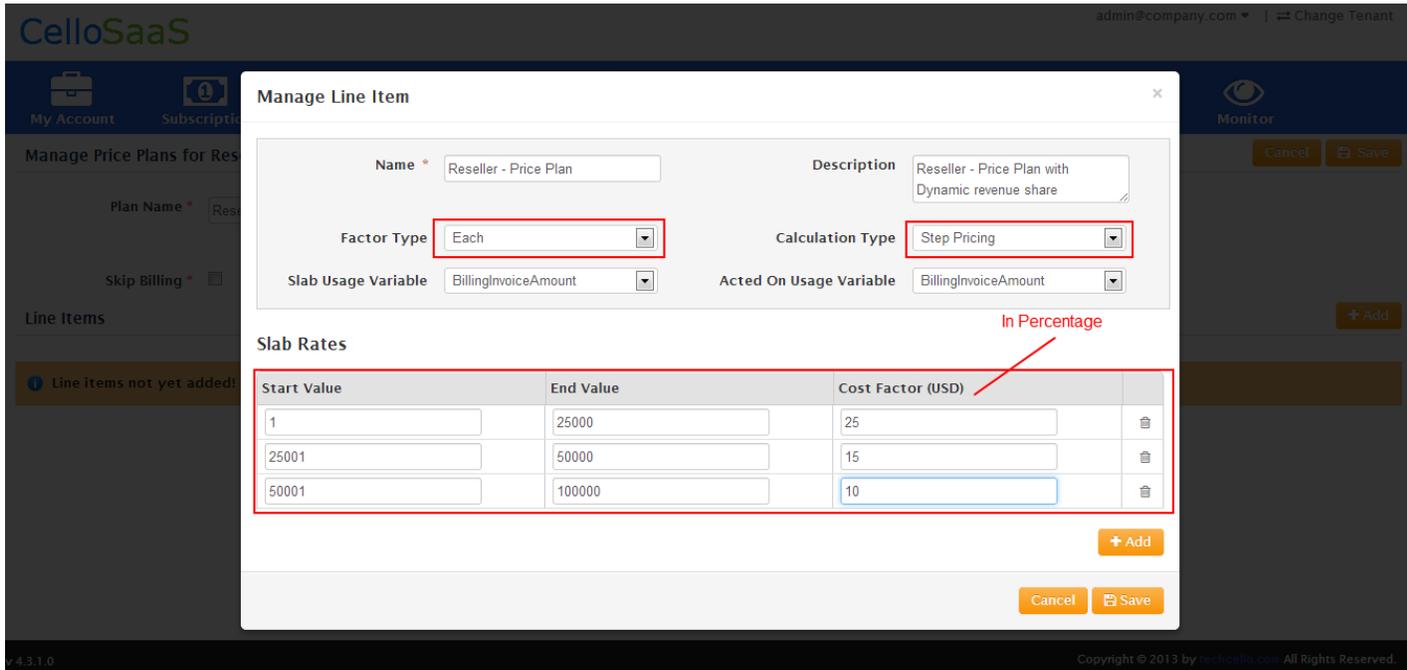
## 7.1.3 Scenario3

Product owner is creating a Reseller Tenant and wants to get dynamic Percentage Share based on the performance of the Sales (Refer below table)

Start Value (in Dollars)	End Value (in Dollars)	Percentage Share
1	25000	25%
25001	50000	15%
50001	100000	10%

The Price Plan screen creation will be as follows:

- Select the Factor type as “**Each**”, which refers to “Revenue Share” on the total revenue made by the Reseller
- Calculation Type must be “**Step Pricing**”
- Choose “**BillingInvoiceAmount**” variable for both “Slab Usage Variable” and “Acted on Usage Variable”
- While Defining the slab value, set the start value as 1 (in \$\$) and End Value of the first slab (in \$\$), set the Cost Factor with the Percentage that has to be shared by the reseller to the product owner, similarly create slabs for other line items as well (Refer below Screenshot).



## 7.1.4 Scenario4

Product owner is creating a Reseller Tenant and wants to get dynamic flat cost based on the performance of the Sales (Refer below table)

Start Value (in Dollars)	End Value (in Dollars)	Flat Cost
1	25000	1000\$
25001	50000	1500\$
50001	100000	2000\$

The Price Plan screen creation will be as follows:

- Select the Factor type as **“Flat”**, which refers to “Flat Cost” which has to be paid by the Reseller to the Product Owner based on the slabs.
- Calculation Type must be **“Step Pricing”**

# How-To – Cello Billing Management

- Choose “**BillingInvoiceAmount**” variable for both “Slab Usage Variable” and “Acted on Usage Variable”
- While Defining the slab value, set the start value as 1 (in \$\$) and End Value of the first slab (in \$\$), set the Cost Factor with the Actual Cost that has to be shared by the reseller to the product owner, similarly create slabs for other line items as well (Refer below Screenshot).

**Manage Line Item**

Name: Reseller - Price Plan  
Description: Reseller - Price Plan with Dynamic revenue share

Factor Type: Each  
Calculation Type: Step Pricing

Slab Usage Variable: BillingInvoiceAmount  
Acted On Usage Variable: BillingInvoiceAmount

**Slab Rates**

Start Value	End Value	Cost Factor (USD)	
1	25000	1000	🗑️
25001	50000	15000	🗑️
50001	100000	2000	🗑️

In Dollars

+ Add  
Cancel Save

**Note:** To define Yearly Reseller Pricing plan, simply choose “**BillingInvoiceYTD**” variable for both “Slab Usage Variable” and “Acted on Usage Variable” instead of “BillingInvoiceAmount”.

## 8 Notification Template

From invoice receipts to declined payments, Cello Billing Service can be configured to email customers and keep them informed about the billing statuses. The emails can be customized and individually enabled.

Navigate to Admin >> Notification >> Content Template

By default Cello Billing Service configured to send emails for the below actions which are completely Customizable by the Product Administrators. These individual emails can be enabled/disabled in the email's Edit Settings page. Emails settings and templates configured for Billing Notifications are global.

By Default, Cello provides all the below mentioned email templates for various purposes. Product Administrators can customize these default templates according to their needs.

Email Type	Description
Bill Generated	Sent when bill is generated on the billing day.
Payment Confirmation	Sent whenever payment is successfully processed.
Payment Failure	Sent when the tenant has auto debit enabled and auto bill payment is failed.
Un Paid Bills Alert Template	Manually Send alert emails for the overdue tenants.
Payment Success	Sent when the tenant has auto debit enabled and generated bill payment is success.

For more information, Refer Notification topic

## 9 Introduction to Billing Scheduling Engine

Execution of Billing, Generation of Invoice for bulk of customers in a single Shot, Validating the Billing etc are long running process and difficult to be done in the Web Context. Cello Provides Billing Service Engine, an Windows Service which could sit in a Web Role or worker Role[in the Case of Windows Azure] and continuously Poll the messages and execute.

### 9.1 Responsibilities of Billing Service

- Generate Invoices based on the configuration

- Check Bill Date and Check bill Frequency
- Retry failed payments
- send pre-trial/subscription end notifications

## 9.2 Billing Service Configuration

Billing Service Related settings can be found in the “*CelloSaaS.BillingWindowsService.exe*” placed inside the Billing Service Folder.

Below are the important configurations, they are

```
<appSettings>
  <add key="MaxParallelThread" value="4" />
  <add key="BatchSize" value="20" /> // Number of items needs to be taken in a single batch
  <add key="Interval" value="360000" /> // Interval between each batch processing
  <add key="MaxPaymentRetry" value="3" /> // Payment retry count
  <add key="RetryIntervalInDays" value="2" /> // Payment Retry Interval Days
  <add key="PreTrialEndNotificationDays" value="3"/>
  <add key="PreSubscriptionEndNotificationDays" value="7"/>
  <add key="PreTrialEndNotificationName" value="Pre-Trail End Notification"/> //Name of the Pre Trial End
Notification
  <add key="TrialEndNotificationName" value="Trail Ended Notification"/> //Name of the Pre Trial End
Notification
  <add key="PreSubscriptionEndNotificationName" value="Pre-Subscription End Notification"/> //Name of
the Pre Subscription End Notification
```

```
  <add key="SubscriptionEndNotificationName" value="Subscription Ended Notification"/> //Name of the Subscription
End Notification
  <add key="UseBatchNotification" value="False"/>
  <add key="YearStartMonth" value="4"/>
  <add key="Payment_CancelUrl" value="http://localhost:5000/Billing/PaymentCancelled" />
  <add key="Payment_ReturnUrl" value="http://localhost:5000/Billing/PaymentApproved" />
  <add key="PAYPAL_REDIRECT_URL" value="https://www.sandbox.paypal.com/webscr&cmd=" />
  <!-- Available Modes: Test or Live -->
  <add key="AuthorizeNETServiceMode" value="Test" />
  <add key="ClientSettingsProvider.ServiceUri" value="" />
  <!-- To turn OFF or ON the Extended Fields for the Entities-->
  <add key="EnableExtendedFields" value="true"/>
  <!-- Enable FlatTable or KeyValueTable -->
  <add key="ExtnTableFormat" value="FlatTable"/>
  <add key="DefaultInvoiceNote" value="&lt;p&gt;Please find the cost-breakdown for the services used. Please make
payment at your earliest convenience, and do not hesitate to contact me with any
questions.&lt;p&gt;&lt;br&gt;&lt;p&gt;Payment terms: to be received within 30 days.&lt;p&gt;"/>
</appSettings>
```

## 9.3 How to Setup Billing Service

The Billing Service Installer is located right inside the CelloSaaS Installer Package named “Billing”, below are the step by step to install the Billing Service

- Navigate to the Folder, Update the connection string in the **sql.config** file to point to the Cello Meta Database or where ever the billing data is stored
- Open and search for “install.bat”
- After installing the Service successfully
- Execute “start.bat” to start the Installed Service (If not already started).

### 9.3.1 PayPal Configuration

```
<paypal>
  <settings>
    <!-- Integration mode - Can be one of live/sandbox -->
    <add name="mode" value="sandbox" />
    <!-- Connection timeout in milliseconds. Defaults to 30 seconds -->
    <add name="connectionTimeout" value="30000" />
    <!-- The number of times a request must be retried if the API endpoint is unresponsive. Defaults
to 1 -->
    <add name="requestRetries" value="1" />
    <!-- Your IP Address. -->
    <add name="IPAddress" value="127.0.0.1" />
  </settings>
  <accounts />
</paypal>
```

## 10 Understanding Price Plans

A pricing plan tells the basis to bill the Customer. Pricing plans are subset of subscriptions and a Subscription plan can have any number of Pricing Plan mapped to it.

### Example

1. Silver Subscription
  - 1.1. Price Plan-1
  - 1.2. Price Plan-2
2. Gold subscription
  - 2.1. Price Plan-1
  - 2.2. Price Plan-2
3. Platinum Subscription
  - 3.1. Price Plan-1
  - 3.2. Price Plan-2

So Tenant 1 can subscribe to **Silver Plan** and have **Price Plan1** and **Tenant 2** can subscribe to the Same **Silver Plan** but hold **Price Plan 2**. While Creating Invoice for Tenant1, the Silver+ Price Plan 1 will be considered and for Tenant 2 the Silver+ Price Plan 2 will be considered.

### 10.1 Components of Price Plan

Price Plan offers a flexible and fine grained payment calculation within a single subscription plan.

#### 10.1.1 Flat Cost

A flat cost is set for a subscription; the same cost will be charged from the customer on month on month basis or based on the frequency [Refer Billing Cycles Topic to understand more about Frequencies] assigned by the Product Administrator.

**Note:** With this model, the product administrator might set limited usage for the features provided in the application. Refer the below example.

#### Example:

**Product:** SaaS CRM Application

**Subscription Name:** CRM Plus

**Pricing Model:** Flat

**Cost:** 99\$

**Billing Cycle:** Monthly

**Features:**

3 – Users

500 – Contacts



Once the Tenant reaches the assigned limits, the tenant cannot use the features further and they have to wait until the month ends.

When the Invoice gets generated for this customer, the total invoice Cost would be Cost + Tax (If Applicable).

Click [here](#) to learn how to create a Subscription with Flat Cost.

## 10.1.2 Usage Cost (aka Pay-as-you-go)

As the name implies, the subscription cost depends on the metered usage [[Click here to understand Usage Metering](#)] of the service with or without base price.

Pay as you go model can work in two modes. They are

- Without Base Cost
- With Base Cost

## 10.1.3 Without Base Cost

This model is a true pay as you go model, where in the subscriber will only be charged for what he has used and there won't be any additional cost.

### Example

**Product:** SaaS CRM Application

**Subscription Name:** CRM Pay As You GO

**Pricing Model:** Pay as you go

**Billing Cycle:** Monthly

**Features:**

1 Opportunity → 1\$

1 Contact → .05 cents

By end of the month, if a tenant has used 100 Opportunities and 100 Contacts, the billing calculation would be as follows

1 \* 100 (Opportunities) = 100\$

.05 \* 100 (Opportunities) = 5\$

-----

**=105\$ + Tax**

-----

Pricing based on per unit might be attractive, but Tenants might ask for Slab based usages. That is

1 - 99 Opportunities → 50 \$ -----> Slab 1

99 – 250 Oppurtunities → 150\$ etc ----- > Slab 2

In order to operate in this model, Product owners have to create slabs in as part of the Pricing Plan. Refer [here](#) to learn the steps involved in creating a Price Plan with slabs.

### 10.1.3.1 With Base Cost

This is as same as above model along with some base cost. Let's look at a example.

### Example

**Product:** SaaS CRM Application

**Subscription Name:** CRM Pay As You GO

**Pricing Model:** Pay as you go

**Base Cost:** 99\$

Usage included in the plan:

100 Opportunities

1000 Contacts

**Billing Cycle:** Monthly

**Additional Usage Cost:**

1 Opportunity → 1\$

1 Contact → .05 cents

By end of the month, if a tenant has used 100 Opportunities and 100 Contacts, the billing calculation would be as follows

Base Cost	=	99\$
1 * 100 (Opportunities)	=	100\$
.05 * 100 (Opportunities)	=	5\$
-----		
		<b>=204\$ + Tax</b>
-----		

## 10.2 Usage Based Cost Calculation

There are two types of Cost calculation under Usage Based Pricing model, they are

- Step Pricing
- Threshold Pricing

### 10.2.1.1 Volume based Pricing

In this model, the tenants are allowed to access the system beyond the actual limit, in addition to the base price; the additional usage cost will also be calculated. The volume based Pricing refers to a billing calculation where the base price is summed with all the applicable slabs in a step by step manner.

**Slab** - A Slab is nothing but usage limit variable with From – To parameters mapped to an amount. During the process of Cost Calculation, these slabs variable’s parameters and amount is applied for arriving the final cost. Product administrators can set Pricing Slabs for each usage Variables.

Note: A Price Plan can contain any number of slabs.

**Acted On Usage Variable** - This variable is a subset of Slab Variable, specifically used for Cost Calculation. Let’s look at a sample scenario to understand “Acted on usage Variable”.

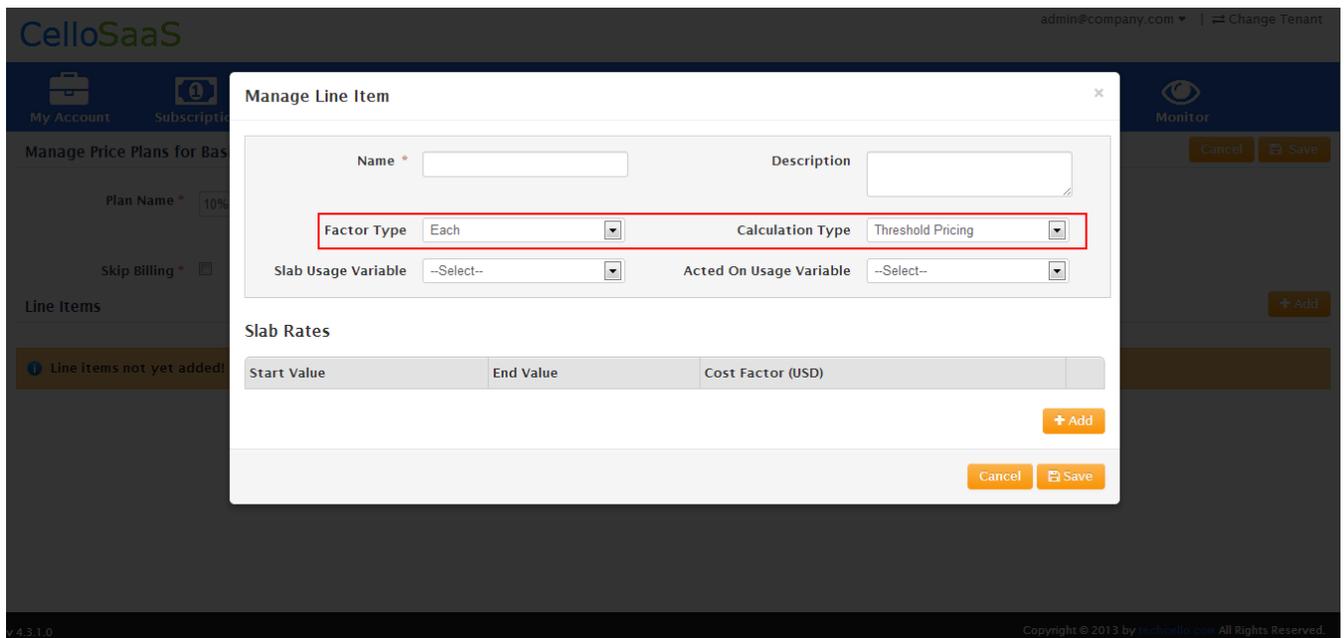
# How-To – Cello Billing Management

**Scenario1** : A SaaS Based Bug Tracking system would like to charge the customer based on number of Users and number issues tracked by this users. In this scenario, “Users” could be considered as “Slab Variable” and “Number of Issues” can be considered as “Acted on Usage Variable”.

Click [here](#) to learn “How to Register Usage Variables”.

**Factor** – It determines the calculation method. There are two kinds of factor, they are

1. **Flat** – It denotes, the flat amount has to applied as is during the cost calculation  
i.e. 1-99 usage → 50\$
2. **Each** – It denotes, the amount has to be considered for each individual usage  
i.e 1 unit → 1 \$



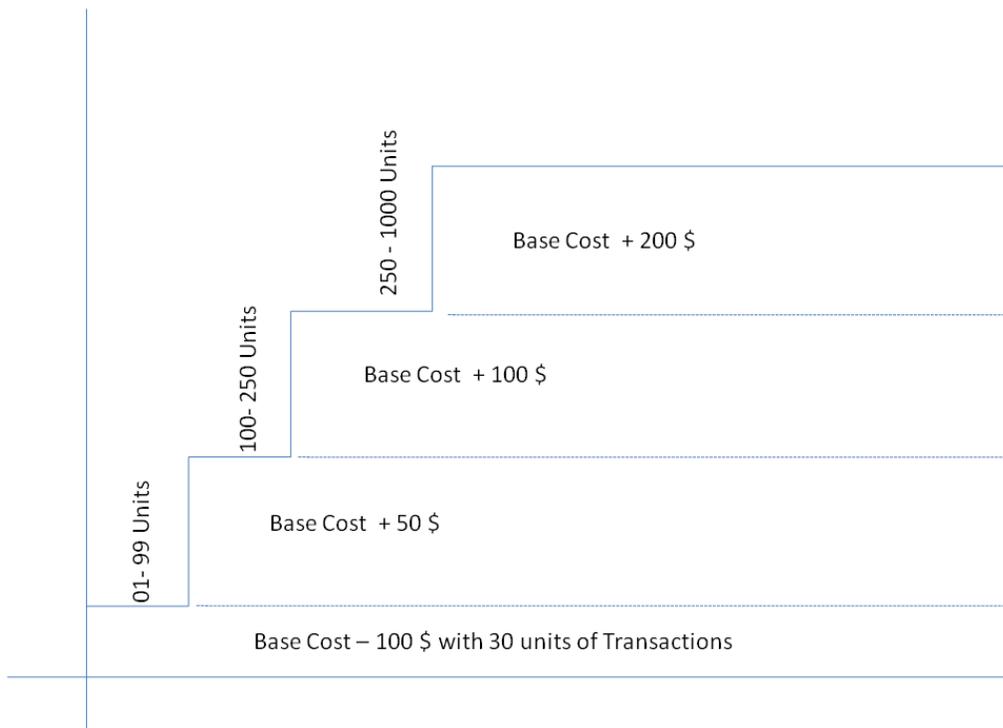
**Manage Price Plan**

Send Email - Feature		Usage count included in the Plan	30 units	Base Cost	100 \$
Slab 1		01 to 99	50\$		100 + 50
Slab 2		100 to 250	100\$		100 + 100
Slab 3		250 to 1000	200\$		100 + 200
Slab - n		1001 to n	500\$		100 + 500

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The below table refers to the Volume based Plan, according to this, For the first 30 transactions, the base cost will be charged, on exceeding the 30 transactions, if the additional usage count lets 350, it applies through all the possible slabs, so the Cost will be calculated like below

Base Cost	= 100 \$
1-99 Usage (Slab 1)	= 99 \$
100 – 250 Usage (Slab 2)	= 100 \$
251 – 1000 Usage (Slab 3)	= 200 \$
<b>Total</b>	<b>= 499 \$</b>



The Volume based pricing methodology can be better explained with the below scenario.

## Scenario 1: Factor Type - Flat

Base Cost: **30\$** Bill Frequency: Monthly  
 Cost Factor Type: **Flat** Calculation Type: **Step Pricing**

Start Value	End Value	Cost in USD
1	1000	99

# How-To – Cello Billing Management

1001	2000	75
2000	9999	50

With the above price plan, let's say a customer's accumulated metered usage is 1890, so according to step pricing with factor type as Flat, the customer will be charged as below

Base Cost	= 30\$
Additional Usage Cost [upto 1- 1000]	= 99\$ [For the first 1000 usage, 99\$ is applied]
Additional Usage Cost [upto 1001- 2000]	= 75\$ [For the second 890 usage, Flat 75\$ is applied]
-----	
Total	= 204\$

Note: In case if a Tenant has used 1 transaction after crossing the set threshold of 30\$, the additional 99 \$ will be levied as per this plan.

### Scenario 2: Cost Factor Type - Each

Base Cost: 30\$      Bill Frequency: Monthly  
 Cost Factor Type: **Each**      Calculation Type: Step Pricing

Start Value	End Value	Cost in USD
1	1000	1
1001	2000	.75
2000	9999	.50

With the above price plan, let's say a customer's accumulated metered usage is 1890, so according to step pricing with cost factor type as each, the customer will be charged as below

Base Cost	= 30\$	= 30.00\$
Additional Usage Cost [upto 1- 1000]	= 1000*1\$	= 1000.00\$
Additional Usage Cost [upto 1001- 2000]	= 890\$*.75\$	= 667.50\$
-----		
Total		= 1697.50\$

### 10.2.1.2 Threshold Pricing

# How-To – Cello Billing Management

In contrast to the Step Pricing, the Threshold pricing works in a different way of calculating the Pricing. In this model, tenant is allowed to use the product without any restriction but the usage is metered, during the cost calculation, it will be calculated as base Price + the slab cost in which the additional usage falls.

**For Example**

**Scenario 1: Cost Factor Type - Flat**

Base Cost: 30\$      Bill Frequency: Monthly  
 Cost Factor Type: Flat    Calculation Type: Threshold Pricing

Start Value	End Value	Cost in USD
1	1000	99
1001	2000	75
2000	9999	50

With the above price plan, let’s say a customer’s accumulated metered usage is 1500, so it falls under 1001-2000, now the customer will be charged as follows

Base Cost                      = 30\$  
 Additional Usage Cost = 75\$  
 -----  
 Total                              = 105\$

**Scenario 1 : Cost Factor Type - Each**

Base Cost: 30\$      Bill Frequency : Monthly  
 Cost Factor Type: Each    Calculation Type: Threshold Pricing

Start Value	End Value	Cost in USD
1	1000	1
1001	2000	.75
2000	9999	.50

With the above price plan, let’s say a customer’s accumulated metered usage is 1500, so it falls under 1001-2000, now the customer will be charged as follows

Base Cost                      = 30\$              =30 \$  
 Additional Usage Cost = 1500 .75\$ =1125\$  
 -----  
 Total                              = 1155\$

## 10.3 How to Create Pricing Plan with base Cost

Price Plans can be created only after the Subscription Plan is created. To Create a subscription, refer “How to Create Subscription Plan - Topic”. Once the Subscriptions are created, Navigate to Package Listing page and click on “Manage Price Plans”. Upon clicking on Price Plans icon, it will display all the available Price Plans for the given package if available, if not available click on “Add” to add a new price plans for the package [[To add new Price Plan refer this](#)]. Fill the mandatory details and hit on “Save” to create the basic cost of the subscription.

- Navigate to Admin → Manage Subscriptions → Click on Manage Price Plan [Refer below Screenshot]

The screenshot shows the CelloSaaS Package Management interface. At the top, there is a navigation bar with icons for My Account, Subscription, Tenant, Access Control, Configuration, Business Events, Notifications, Workflow, Reporting, and Monitor. Below this is a sub-header for Package Management with a search bar and a 'GO' button. The main content area is divided into two sections: Package Distribution and Manage Price Plans.

**Package Distribution**

Package Distribution Stats

Package	Percentage
Basic Package	51.61 %
Use and Pay Package	19.35 %
Starter Package	16.13 %
Premium Package	9.68 %
Evaluation Package	3.23 %

**Manage Price Plans**

Name	Trial Period	Manage Price Plans	Edit
Basic Package	15		
Evaluation Package	30		
Premium Package	0		
Starter Package	7		
Use and Pay Package	0		

### Package Management

- On clicking on the “Manage Price Plan”, you will be redirected to “Price Plan Listing Page” [Refer below screenshot]

The screenshot shows the CelloSaaS Price Plans for Basic Package interface. At the top, there is a navigation bar with icons for My Account, Subscription, Tenant, Access Control, Configuration, Business Events, Notifications, Workflow, Reporting, and Monitor. Below this is a sub-header for Price Plans for Basic Package with a search bar and a 'GO' button. The main content area is a table listing price plans.

**Price Plans for Basic Package**

Plan name	Plan description	Price (USD)	Bill frequency	Skip calculation	Edit	Delete
10%off		\$125.00	Monthly	x		
Basic Plan	Basic Plan	\$149.00	Monthly	x		

### Price Plan Listing Page

# How-To – Cello Billing Management

- Click on Add button to add a new Pricing plan for a Package.

The screenshot shows the CelloSaaS interface for managing price plans. The header includes the CelloSaaS logo and user information (admin@company.com). A navigation bar contains icons for My Account, Subscription, Tenant, Access Control, Configuration, Business Events, Notifications, Workflow, Reporting, and Monitor. The main section is titled 'Manage Price Plans for Basic Package' and contains a form with the following fields: Plan Name (10%off), Plan Description, Skip Billing (checkbox), and Plan Price (125 USD / Month). A red arrow points to the Plan Price field with the label 'Base Price'. There are 'Cancel' and 'Save' buttons at the top right, and an 'Add' button at the bottom right. A message bar at the bottom says 'Line items not yet added!'.

## Add Price Plan

- Fill in the mandatory information and click and Save

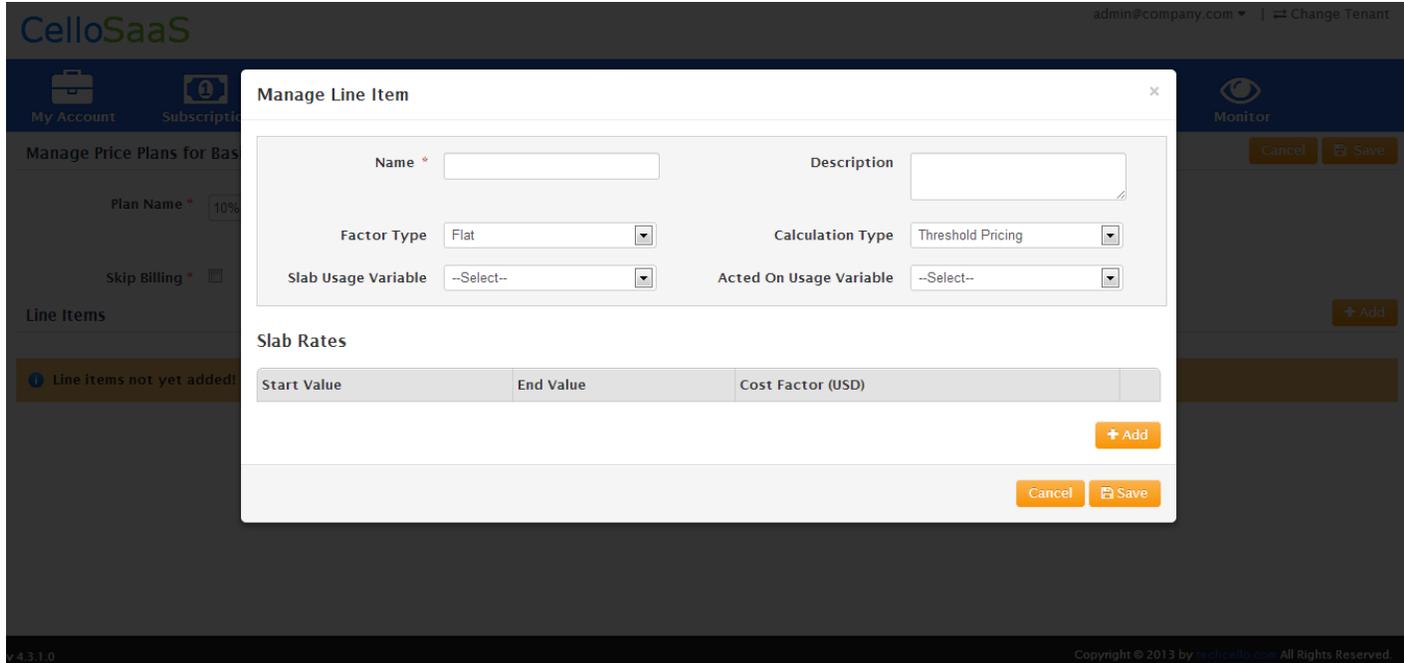
<b>Plan Name</b>	Describes your plan and will appear on the subscriber's invoice.
<b>Plan Description</b>	A description of the plan that will appear on the subscriber's email invoice, if configured in email templates.
<b>Plane Price</b>	Base cost amount charged to a plan's subscribers. Click <a href="#">here</a> to understand how to setup price plan with base Cost.
<b>Skip Billing</b>	Check if you don't want to use Cello's Invoicing Engine

## Sample Scenario

<b>Scenario 1:</b>	<b>Scenario 2:</b>
<b>Customer Name:</b> ACME Corporation	<b>Customer Name:</b> Strata Inc
<b>Plan Name:</b> Starter plan	<b>Plan Name:</b> Enterprise Plan
<b>Cost:</b> 99 \$ per month	<b>Cost:</b> 250 \$ per month
<b>Billing Frequency:</b> Quarterly	<b>Billing Frequency:</b> Yearly
<b>Billing Calculation:</b> 99 \$ * 3 = 297 \$	<b>Billing Calculation:</b> 250 \$ * 12 = 3000 \$

## 10.3.1 How to Create Pricing Plan with Step Pricing

After creating the basic Price Plan for a subscription, click on “Add” button to add slabs or line items.



**Create Slab Screen**

Field Name	Description
Name	Name of Slab
Description	Description for the Slab
Factor Type	Select the factor type Flat or Each, Refer <a href="#">here</a>
Calculation Type	Step or Threshold Pricing Calculation, Refer <a href="#">here</a>
Slab Usage Variable	Refer <a href="#">Here</a>
Acted on usage Variable	Refer <a href="#">Here</a>

Fill in the above details and click on Add button to add Slab Rates for the Price Plan defined, Refer below Screenshot.

Name	Description	Slab Usage Variable	ActedOn Usage Variable	Bill As On Metered	Meter Type	View Slabs	Edit	Delete
Invoice	invoice usage	Invoice	EmployeeRating	x	Each	Q	✎	🗑
		<b>Start Value</b>	<b>End Value</b>	<b>Cost Factor (USD)</b>				
		1	100	5				
		101	200	4				
		201	300	3				
		301	∞	2				
User Notification	Email notification	UserNotification	Invoice	✓	Each	Q	✎	🗑
		<b>Start Value</b>	<b>End Value</b>	<b>Cost Factor (USD)</b>				
		1	100	10				
		101	250	8.3				
		251	500	7.5				
		501	∞	6.66				
Employee Rating	Employee rating usage.	EmployeeRating	--	x	Flat	Q	✎	🗑
		<b>Start Value</b>	<b>End Value</b>	<b>Cost Factor (USD)</b>				
		1	∞	0.25				

## Slab Listing Screen

### 10.4 To Update Pricing Plan

- Navigate to Admin → Subscription → Manage Subscription and click on Manage Price Plans

CelloSaaS admin@company.com | ⇄ Change Tenant

---

My Account Subscription Tenant Access Control Configuration Business Events Notifications Workflow Reporting Monitor

Package Management Tenant: Company + Add

#### Package Distribution

Package Distribution Stats

■ Evaluation Package ■ Basic Package ■ Use and Pay Package ■ Premium Package ■ Starter Package

Search  GO

Name	Trial Period	Manage Price Plans	Edit
Basic Package	15	<span style="border: 1px solid red; padding: 2px;">✎</span>	✎
Evaluation Package	30	✎	✎
Premium Package	0	✎	✎
Starter Package	7	✎	✎
Use and Pay Package	0	✎	✎

Show 10 entries Showing 1 to 5 of 5 entries ⏪ 1 ⏩

- Click on edit icon to edit the price plan details



### Price Plans for Basic Package

Back + Add

Plan name	Plan description	Price (USD)	Bill frequency	Skip calculation	Edit	Delete
10%off		\$125.00	Monthly	x		
Basic Plan1		\$99.00	Monthly	x		
Basic Plan	Basic Plan	\$149.00	Monthly	x		

- Click on edit icon to edit the price plan details



### Manage Price Plans for Basic Package

Cancel Save

Plan Name \*  Plan Description

Skip Billing \*  Plan Price \*  USD / Month

Line Items + Add

- Update the details and then click on Save.

## 10.5 To Delete Pricing Plan

Deleting a price plan is fairly straight forward. Navigate to Price Plans Page and click on the Delete icon.

If the Price plan is not mapped to any of the tenant, the system will allow you to delete the pricing plan, if not you may encounter the below info message on deleting the Pricing Plan.



### Price Plans for Basic Package

Back + Add

Price plan cannot be deleted. It's been used in tenant license!

Plan name	Plan description	Price (USD)	Bill frequency	Skip calculation	Edit	Delete
10%off		\$125.00	Monthly	x		
Basic Plan	Basic Plan	\$149.00	Monthly	x		

## 10.6 To map Price Plan & Subscription to the Tenant

Once the Price Plans and Slab rates are defined, it will be automatically displayed in the Tenant Management module.

Navigate to Admin → Manage Tenants → Add Tenant

# How-To – Cello Billing Management

While Creating a Tenant using Admin Dashboard, the subscription Plan and its related Price Plans are mapped to the Tenant. [Refer the Screenshot below]

Package Settings

Package\* Basic Package

Subscription Start Date\* 11/5/2013

Trial End Date

Tax Rate

Price Plan --Choose a plan--

Subscription End Date

Number of Users 10%off

Basic Plan

## Create Tenant Screen

### 10.7 Mapping of Price Plan in Self Registration Scenario

In the Self Registration mode, Users are allowed only to select a subscription plan, but not any specific pricing plan. As a policy, Cello Assigns the top most pricing plan of the selected subscription for the self Registered Tenant.

## CelloSaaS

Get started today!

Choose a Plan

Basic Package  
Basic package with 15 days trial  
**\$149.00**  
Monthly

Evaluation Package  
30 days evaluation package.  
**\$0.00**  
Monthly

Use and Pay Package  
Usage based billing package  
**USAGE CHARGES**  
Monthly

Enter Company Information

Company Code String\*

Company Name\*

Company Size\* -Select-

First Name\*

Last Name\*

Email\*

Phone\*   
e.g.: +1-234-567-8901 or +1 (234) 56 89 901

Register

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## 10.8 Manage Pricing Plans using API

Developers can use APIs to setup and manage Pricing plans within the system.

### 10.8.1 To Create Price Plan

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)  
**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
Guid AddPricePlan(  
    PricePlan pricePlan  
)
```

### 10.8.2 To Update Price Plan

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)  
**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
void UpdatePricePlan(  
    PricePlan pricePlan  
)
```

### 10.8.3 To delete Price Plan

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)  
**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
void DeletePricePlan(  
    Guid pricePlanId,  
    Guid tenantId  
)
```

### 10.8.4 To get Price Plan

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)  
**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
PricePlan GetPricePlan(  
    Guid pricePlanId,  
    Guid tenantId  
)
```

### 10.8.5 To get collection of Price Plans

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)  
**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
Dictionary<Guid, PricePlan> GetPricePlans(  
    Guid[] pricePlanIds,  
    Guid tenantId  
)
```

### 10.8.6 To get Price Plan by Subscription ID

**Namespace:** [CelloSaaS.Billing.ServiceContracts](#)

**Assembly:** CelloSaaS.Billing (in CelloSaaS.Billing.dll)

```
Dictionary<Guid, PricePlan> GetPricePlansByPackageId(  
    Guid packageId,  
    Guid tenantId  
)
```

## 11 Contact Information

Any problem using this guide (or) using Cello Framework. Please feel free to contact us, we will be happy to assist you in getting started with Cello.

**Email:** [support@techcello.com](mailto:support@techcello.com)

**Phone:** +1(609)503-7163

**Skype:** techcello