

# **Cello How-To Guide**

## Tenant Management



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## 1 Tenant Management

Tenant Management is one of the core modules of Techcello application. Tenant Management dashboard provides an overview of all customer accounts managed within your application. From this view you can search by tenant name, subscription package, status, self-registered, and any other assigned attribute. The filters on this view allow you to filter accounts by different categories for easy sorting.

**Who is a tenant?** If you are focused on enterprise SaaS (Business to Business applications), each of your customer would be a tenant.

### Example

If you are developing a HR Payroll processing product, each company that purchases the product becomes the client AKA **tenant**. Each tenant will have Finance resource who will process payroll needs of their employees called as **Users**.

- If your company use salesforce.com for sales force automation, your company is a tenant for salesforce.com.
- If you are focused on B2C, each customer (you and me) will be considered as tenants.

CelloSaaS has implemented “Shared Tenancy” model, which is the best and most economical models available for managing multiple tenants. This chapter explains about the tenant management and the data model behind tenant management.

### Multiple Ways to add new Tenants into the System

There are multiple ways to onboard a new tenant. They are

- Using Admin Dashboard
- Self Registration

### *1.1 On Boarding Using Admin Dashboard*

This is a standard way of on boarding new tenants in CelloSaaS where the administrator of the product fill the details of the tenants and provide appropriate software package and pass on the credentials to the tenant and allow him to use the Software.

### *1.2 Add Tenant*

Product admin should provide the necessary details such as Tenant, contact, address, administration, package details.

Product admin should select any one of the package for tenant, based on their need.

# How-To – Tenant Management

While provisioning Tenant, the administrator can set the number of users can be created by the tenant, If number of users is set null, then tenant can have any number of users. If the user count is set, then tenant can have specified number of users only.

Number of users should be greater than or equal to number of users for tenant.

**Example:** If the tenant has 10 users, then number user value will be greater than or equal to 10.

CelloSaaS

admin@company.com | Change Tenant

My Account

Subscription

Tenant

Access Control

Configuration

Business Events

Notifications

Workflow

Reporting

Monitor

Add Tenant

Cancel

Save

Tenant Details

Tenant Code String \*

Tenant Name \*

Description

Website

URL

Tenant Types \* SMB

Auto Debit

Billing Address

If any field for Billing Address is filled in, the mandatory check will be enforced.

Address \*

City \*

State \*

Country \* --Select Country--

Postal Code

Contact Details

If any field for Contact Details is filled in, the mandatory check will be enforced.

First Name \*

Last Name \*

Phone \*

Fax

Contact Email \*

Tenant Admin User Details

First Name \*

Last Name

User Name \*

Tenant Admin Email

Package Settings

Package\* --Choose A Package--

Price Plan --Choose a plan--

Subscription Start Date \* 10/3/2013

Subscription End Date

Trial End Date

Number of Users

Tax Rate

Description

Name	Description	Percentage	Order	
VAT 4%	VAT 4%	4%	0	

+ Add

Cancel

Save

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## Add Tenant Screen

Once the tenant is created successfully, the **Tenant Admin role** will be assigned to Tenant instantly. Common roles, Global pickup list and its values will be copied to the newly created tenant by using Tenant Post processor method.

## 1.3 Tenant Activation Process

When a new tenant is created using Admin Dashboard, the tenant status will be activated immediately but when a tenant created using Self Registration, an activation email will be sent to the respective email id used when the time of registering the tenant; the user must activate the account by clicking on the email link received.

If the user misplace the activation email or if the email lost, alternatively the Product admin or the Tenant who ever created the account can activate the account on behalf of the user.

Navigate to Tenant → Manage Tenants >> Unapproved Tenants Tab

When the user requests the activation email once again, the product admin can get the copy of the email sent to the user in Notification Audit. Navigate to Monitor → Notification

The screenshot displays the CelloSaaS Admin Dashboard. At the top, the CelloSaaS logo is on the left, and the user email 'admin@company.com' with a 'Change Tenant' link is on the right. Below this is a blue navigation bar with icons and labels for: My Account, Subscription, Tenant, Access Control, Configuration, Business Events, Notifications, Workflow, Reporting, and Monitor. The main content area is titled 'Notification Audit Details' and includes a 'Tenant:' dropdown menu set to 'Company'. On the left, there are filters for Notification type (Email), Notification name (-All-), Status (-All-), Start time, End time, and Map Id, with 'Reset' and 'Search' buttons. The right side shows 'Search Result' with two entries: 'Tenant Activation Mail Sent on 10/24/2013 6:05 AM' and 'Tenant Welcome Mail Sent on 10/23/2013 12:02 PM'. The first email details include recipient 'admin@jjill2.com', sender 'cellosaasdemo@gmail.com', subject '[Activation] Welcome to Techcello', and login credentials. The second email details include recipient 'contact@agilebio.com', sender 'cellosaasdemo@gmail.com', subject 'Welcome To Techcello', and a welcome message to Pierre Rodrigues.

## ***1.4 Configure Subscription***

Before Tenants are being created in the system, the subscriptions and associated price plans must be created well ahead, because while creating a tenant, the administrator has to grant a License for the Tenant. To know more about Creating Subscription refer “[How to Create Subscriptions](#)”.

## ***1.5 Edit Tenant***

To edit Tenant details, navigate to Tenant >> Manage Tenant, click on the name of the Tenant to modify or update the Tenant Details.

**Note:** The Tenant Use details form will be hidden while editing the Tenant Details, because there may be more than 1 user assigned as a Tenant Administrator for a given Tenant, Hence the Edit Tenant Admin User form is kept hidden in the Edit Tenant Form.

CelloSaaS

admin@company.com | Change Tenant

My Account

Subscription

Tenant

Access Control

Configuration

Business Events

Notifications

Workflow

Reporting

Monitor

Edit Tenant

Query BuilderUpdateDeactivate LicenseChart Builder

Tenant Details

Tenant Name \*ABC Telecom

Description

Websitehttp://www.abctelecom.com

URLhttp://abctelecom.techcello.com

Tenant Types \*Enterprise

Auto Debit

Billing Address

If any field for Billing Address is filled in, the mandatory check will be enforced.

Address \*Address

City \*City

State \*State

Country \*Nigeria

Postal Code89633

Contact Details

If any field for Contact Details is filled in, the mandatory check will be enforced.

First Name \*Gustavo

Last Name \*Pollman

Phone \*+1-718-696-8962

Fax+1-718-696-8962

Contact Email \*gustavo.pollman@techcello1.com

Package SettingsView History

Package \*Use and Pay Package

Price PlanUse & Pay Plan

Subscription Start Date \*6/5/2012

Subscription End Date

Trial End Date

Number of Users

Tax Rate

Description

Default taxes

Name	Description	Percentage	Order	
VAT 4%	VAT 4%	4%	0	

+ Add

Cancel

Update

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## Edit Tenant Screen

### 1.6 Off-Boarding Tenant

The process of removing or hard deleting the complete Tenant information from the system is called as Tenant Off-Boarding. I.e. When the Tenants no longer use the application or when they want to switch to another Provider, tenants can write to Product administrator seeking for de-activation of account. Cello doesn't hard/soft delete option to remove the entire details of the customer using dashboard. In order to de-activate the Tenant account from the product, Login as Product admin and navigate to Tenant →

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# How-To – Tenant Management

Manage Tenant Details → open the tenant in Edit mode → click on De-activate License Button [Refer Screenshot below]

CelloSaaS admin@company.com | ⇌ Change Tenant

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

**Edit Tenant** Cancel Update Deactivate License

---

**Tenant Details**

Tenant Name *	<input type="text" value="ABC Telecom"/>	Description	<input type="text"/>
Website	<input type="text" value="http://www.abctelecom.com"/>	URL	<input type="text" value="http://abctelecom.techcello.com"/>
Tenant Types *	<input type="text" value="Enterprise"/>	Auto Debit	<input type="checkbox"/>
Data Partition *	<input type="text" value="NA"/>	Company Size *	<input type="text" value="-Select-"/>

---

**Billing Address**

● If any field for Billing Address is filled in, the mandatory check will be enforced.

Address *	<input type="text" value="Address"/>	City *	<input type="text" value="City"/>
State *	<input type="text" value="State"/>	Country *	<input type="text" value="Nigeria"/>
Postal Code	<input type="text" value="89633"/>		

---

**Contact Details**

**Edit Tenant**

## 1.7 Tenant Dashboard



CelloSaaS admin@company.com | Change Tenant

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

Tenant Management Tenant: Company Product Usage  
Usage  
Notification  
Events  
Jobs

Approved Tenants Unapproved Tenants Tenant Density Graph

Active Tenants	Not Activated	New 2013
27	0	2
Paying	Trial	Cancelled 2013
25	2	0

Search text... ☐ Is Online ☐ Has Child Tenants ☐ Has Overdue ☐ Without Payment Account ☐ Self Registered ☐ Auto Debit

All Tenant Type All Package All Search Reset

<b>ABC Telecom</b> Member since 1 years http://abctelecom.techcello.com gustavo.pollman@techcello1.com +1-718-696-8962 Enterprise	<b>Use and Pay Package</b> Start 5 May, 12 End -- Use & Pay Plan \$0	Total Users 1 Total Bills (YTD) 9	Online Users 0 Revenue (YTD) \$0	Child Tenants 0 Overdue \$0
<b>Acme Corp</b> Member since 7 years http://acmecorp.techcello.com belva.majewski@techcello1.com +1-903-766-2159 SMB	<b>Basic Package</b> Start 17 May, 06 Trial End -- Basic Plan \$149	Total Users 1 Total Bills (YTD) 9	Online Users 0 Revenue (YTD) \$1,341	Child Tenants 0 Overdue \$12,247
<b>Acme, inc.</b> Member since 6 years http://acmeinc.techcello.com coy.monico@techcello1.com +1-128-215-1908 Enterprise	<b>Basic Package</b> Start 27 Jan, 07 Trial End -- Basic Plan \$149	Total Users 2 Total Bills (YTD) 9	Online Users 0 Revenue (YTD) \$1,341	Child Tenants 0 Overdue \$10,459

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## Tenant Management Screen

### 1.8 Self Registration

Similarly Onboarding new customer without using the Admin User Interface can be done using the Service Methods given by celloSaaS. Developers should use these and create Tenants/Manage Tenants, all the actions possible with the User interface can be achieved using the APIs.

**Note:** Self Registration Capability is only available for the Super Tenant i.e. the Product owner, but it will not be available for SMB, Enterprise or Reseller Tenants

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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## 1.9 How to mark packages for Self Registration

Using the Subscription Dashboard, You can create any number of packages. For more details refer [subscription management](#).

**Note:** In order to display the Subscription Packages in Self-Registration Page, the pricing plan must be configured for the package, else it will not listed in Subscription Plan.

## 1.10 Pre-Requisites for Creating Tenants

1. Decide where to store Application Specific Data , [Refer Data Sharding/Isolation Topic](#)
2. Update Notifications related Settings such as SMTP details, From, To Email by navigating through Notifications → Notification Management
  - a. Click on the dispatch details of all the Notification emails and update the dispatch details, alternatively you can also update it via the Meta tables.
  - b. Look for **dbo.EmailDispatchDetails** table in the CelloSaaS MetaData and update all the dispatch details in one go.
  - c. In order to test the dispatch details are working, you can try triggering any one of the email process and then confirm.
  - d. Make sure the distributed Transactions component is enabled and started. Click [here](#) to refer
  - e. Notification engine is completely audited on the all the actions performed.
  - f. Navigate to Monitor → Notification to see the email audits

# How-To – Tenant Management

**CelloSaaS** admin@company.com | Change Tenant

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

### Notification Audit Details

Tenant: Company

Notification type: Email  
Notification name: -All-  
Status: -All-  
Start time:   
End time:   
Map id:

**Search Result**

**Tenant Activation Mail Sent on 10/24/2013 6:05 AM**

To: admin@jll2.com  
From: cellosaasdemo@gmail.com  
Subject: [Activation] Welcome to Techcello

Dear admin Name,  
Welcome to Techcello and thank you for registering with us.

To activate your account please click here.  
Login Credentials:  
Company Code: jll  
User Name: admin@jll2.com  
Password: 2[4H]ygcQ  
Best Wishes,  
Techcello Web Admin

**Tenant Welcome Mail Sent on 10/23/2013 12:02 PM**

To: contact@agilebio.com  
From: cellosaasdemo@gmail.com  
Subject: Welcome To Techcello

Dear Pierre Rodrigues,  
Welcome to Techcello.

admin@company.com | Acme Corp

### ACME Corp

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

### Manage Notification Details

Notification Name	Description	Category	Manage Dispatch	Edit	Delete
Bill Generated Notification	Sent when bill is generated on the billing day.	-		-	-
Forgot Password Mailer	Forgot Password Mailer	-		-	-
Payment Failure Notification	Sent when the tenant has auto debit enabled and aut...	-		-	-
Payment Success Notification	Sent when the tenant has auto debit enabled and gen...	-		-	-
Pre-Subscription End Notification	Sent before Subscription ends.	-		-	-
Pre-Trail End Notification	Sent before trail ends.	-		-	-
Subscription Ended Notification	Sent when Subscription ends.	-		-	-
Tenant Activation Mail	Tenant Activation Mail	-		-	-
Tenant License Activation Mail	Sent when admin activates tenant license via UI.	-		-	-
Tenant License Deactivation Mail	Sent when admin deactivates tenant license via UI ...	-		-	-
Tenant Rejected Mail	Sent when parent tenant rejects the skip level ch...	-		-	-
Tenant Subscription Changed Mail	Sent when tenant updates the subscription package.	-		-	-
Tenant Welcome Mail	Sent when tenant clicks activates link or admin ap...	-		-	-
Trail Ended Notification	Sent when trail ends.	-		-	-
Un Paid Bills Alert Notification	Admin will sent this manually from Search bills UI...	-		-	-
User Confirmation Mailer	User Confirmation Mailer	-		-	-
User Password Mailer	User Password Mailer	-		-	-

Show 25 entries Showing 1 to 17 of 17 entries

### Manage Email Dispatch Details

Notification Type: Email

Sender Address\*: cellosaasdemo@gmail.com  
Smtp Address\*: smtp.gmail.com  
Smtp UserName\*: cellosaasdemo@gmail.com  
Smtp Password\*: \*\*\*\*\*  
Port Number\*: 587  
Enable SSL: ☒

**Email Content Details**

Subject\*: Bill #([Invoice.InvoiceNo]) - \$([Inv...]  
Attachment Folder:   
Attachment files:   
Has Template: ☒  
Template Rule Set:   
Default Template\*: --Select--

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3. Create Package, Refer [Package Management](#)
4. Alter the Default Settings Template to hold the default properties required to be updated for a Tenant Refer [Settings Template](#)
5. When a new created either using Admin Dashboard or Self Registration, the default settings template is automatically assigned and its default values are automatically assigned to the Tenant.
6. Provision through User Interface / Provision through Service , Refer [Add Tenant](#)

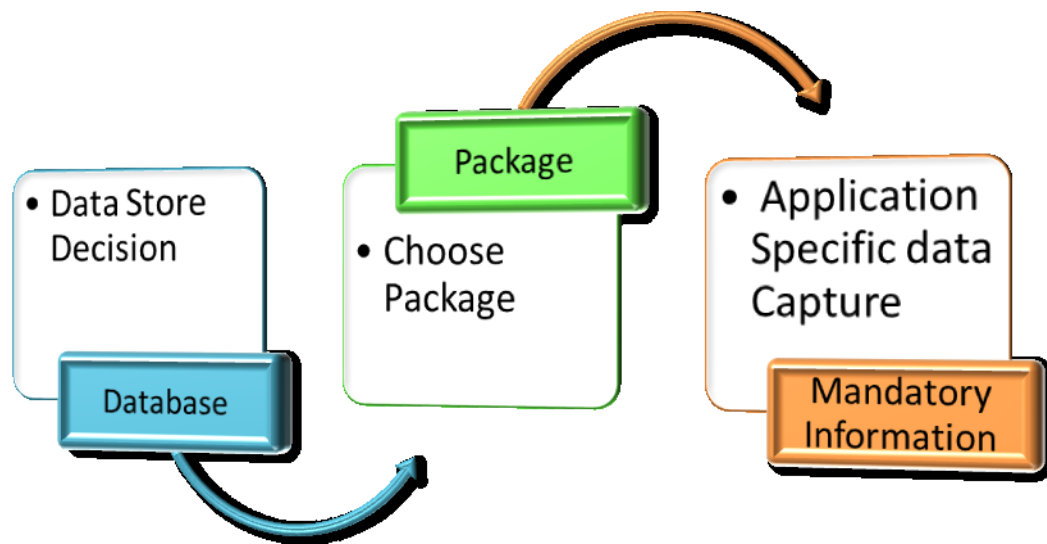


Figure 1-1 – Pre-Requisites for Creating Tenants

### Post Process

Create Setting Templates

Roles and Privilege

Application Access via URL

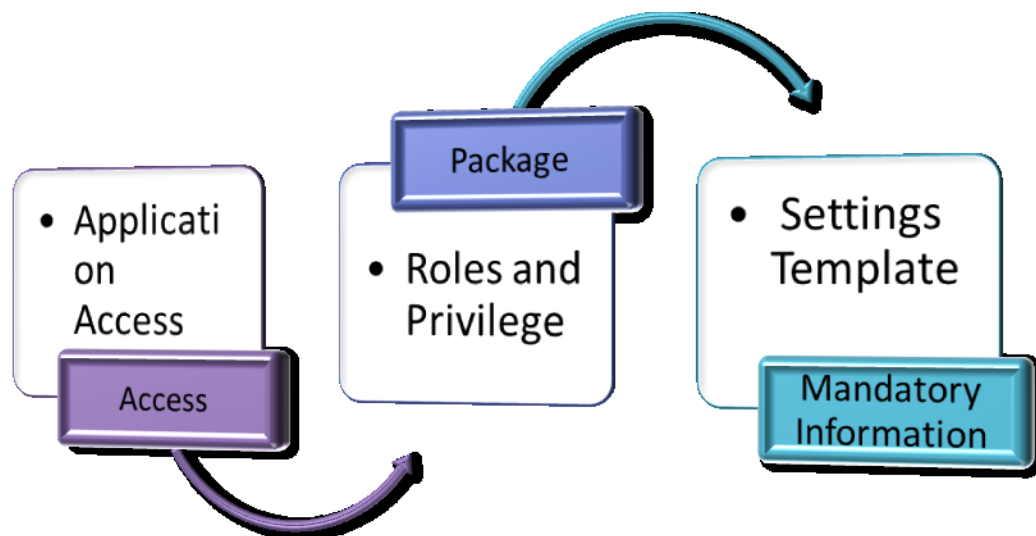


Figure1 Post Process

## 2 Tenant Analytics

As part of the Tenant Management, Techcello Provides Tenant Analytics feature which provides detailed analysis about the following information, They are

- Hot Trial - Customers who are in trial period and actively evaluating the product
- Trial Needing Attention - Customers who are in trial period but not evaluating actively.
- Customer Needing Attention – List of all the customers with Low/Medium/High Usage.

CelloSaaS

admin@company.com | Change Tenant

My Account

Subscription

Tenant

Access Control

Configuration

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### Hot Trials

Trial From Date >= 8/28/2013 Trial To Date <= Since last activity day Visit Frequency Low Reset Search

Name	Trial From Date	Trial To Date	Last Activity Date	Total Hits	Average Hits/Day	User Count	Trial Days	Used Days	Visit Frequency
AgileBio	10/23/2013	11/7/2013	10/28/2013	3	3	1	6	1	Low

Show 10 entries Showing 1 to 1 of 1 entries

### Trials Needing Attention

Trial From Date >= 8/1/2013 Trial To Date <= Has no activity since last day Visit Frequency Low Reset Search

No records are available for the search criteria!

### Customer Needing Attention

Since last activity day Visit Frequency -All- Reset Search

Name	From Date	Last Activity Date	Total Hits	Average Hits/Day	User Count	Total Days	Used Days	Visit Frequency
Acme Corp	5/17/2006	10/28/2013	86	7.17	1	2722	12	Low
Acme, inc.	1/27/2007	10/25/2013	111	22.2	1	2467	5	Low
Allied Biscuit	2/18/2008	9/30/2013	2	2	1	2080	1	Low
Ankh-Sto Associates	4/27/2006	9/26/2013	4	4	1	2742	1	Low
Bootstrap	9/26/2013	9/26/2013	47	47	1	33	1	Low
Demo ccount2	10/7/2013	10/7/2013	136	136	1	22	1	Low
Demo Company	2/10/2012	9/27/2013	28	14	1	627	2	Low
Demo, inc.	6/22/2012	9/26/2013	5	5	1	494	1	Low
DemoAccount	10/1/2013	10/17/2013	392	78.4	3	28	5	Low
Extensive Enterprise	6/8/2006	9/26/2013	3	3	1	2700	1	Low

Show 10 entries Showing 1 to 10 of 15 entries

v4.3.1.0

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## 3 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