**US\_299206\_Cognizant: Enhance Create Tenant To include Create Account**

**Understanding of the requirement**

The creation of the user account includes user subscription and lease creation.

**Assumptions**:

* Sandbox account and credentials are provided and we are able to access.
* Any changes made in RentTrack API which is given in the API documentation, will be notified.
* GitLab Apiary access will be provided

**High level Technical design and solution**

* 1. Impacted Modules

bcm-service

bcm-web

bcm-common

renttrack-plugin

* 1. Impacted Workflows
     1. Overview:

The creation of the user account includes user subscription creation and lease creation.

BCM will internally invoke all the RentTrack APIs which includes user subscription and lease creation APIs.

* + 1. APIs Involved:

POST https://my.sandbox.rt-stg.com/oauth/v2/token

BCM is the consumer

Payload : partner\_username, partner\_password, client\_id and a client\_secret.

POST https://my.sandbox.rt-stg.com/api/partner/users

BCM is the consumer

Payload : type, first\_name, last\_name, email, password.

Error Codes:

201 - Returned when successful

400 - Error validating data. Please check parameters and retry.

409 - User exists.

500 - Internal Server Error

PATCH https://my.sandbox.rt-stg.com/api/tenant/details

BCM is the consumer

Payload : first\_name, last\_name, middle\_name, email, phone, date\_of\_birth, ssn, email\_notification, offer\_notification, culture

Error Codes:

204 - Returned when successful

400 - Error validating data. Please check parameters and retry.

500 - Internal Server Error

POST /api/tenant/subscriptions/

BCM is the consumer

Payload : payment\_account\_url, plan\_name, period, uuid, promotion\_code, uuid\_required

Error Codes:

201 - Returned when successful

400 - Error validating data. Please check parameters and retry.

409 - Can not create new one subscription

500 - Internal Server Error

POST /api/tenant/leases

* + - * + BCM is the consumer
        + Payload : Address, Landlord information and Rental Payment details
        + Error Codes:

201 - Returned when successful

400 - Error validating data. Please check parameters and retry.

409 - User exists.

500 - Internal Server Error

iii. Messaging Infrastructure: N/A

iv. UI Screens: N/A

* 1. DB Changes:

1. Auditing Tables such as **WebService\_logs, External\_log, Customer\_Usage\_activity**

2. Table Name : **customer\_data**

Table Description :

* ucid
* brand
* customer\_data\_id
* customer\_email
* created\_date
* modified\_date
* access\_token
* refresh\_token
* token\_expiry
* token\_created
  1. Dependencies

RentTrack API

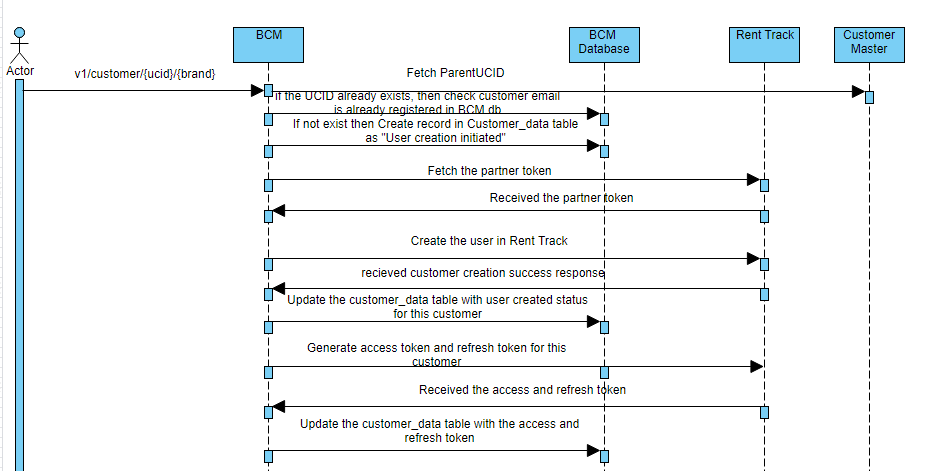
* 1. Blocker Inputs needed

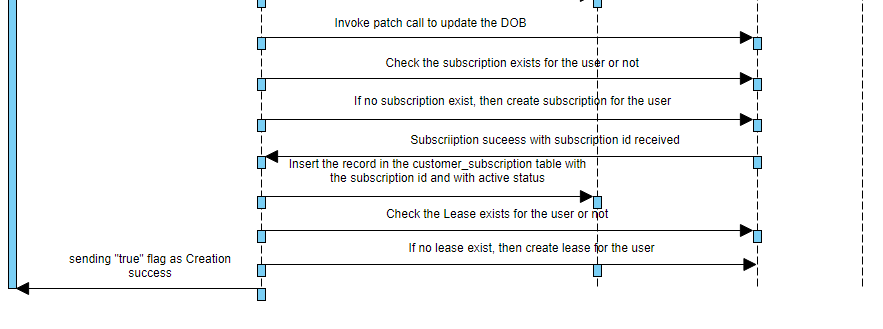
The sandbox access need to be provided

* 1. Design Patterns considered and the chosen one

SOA

g) Sequence Diagram





**Business** :

**Step 1 :** Insert the customer data record with below details before user creation started

ucid, brand, resident status as USER\_CREATION\_INITIATED

**Step 2** : Invoking sandbox RentTrack API with the required parameters as given below

**Request** :

<https://my.sandbox.rt-stg.com/oauth/v2/token>[?](https://my.sandbox.rt-stg.com/oauth/v2/token?client_id=26_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant_type=password)

[client\_id=26\_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client\_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant\_type=password](https://my.sandbox.rt-stg.com/oauth/v2/token?client_id=26_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant_type=password)

**Response :**

{"access\_token":"OGI4NWM4NDY3NTE3ZDE3MmYwYThmNGI3ZDk0ODJhYmMwMDIzOTU5YzBlYzViYmU2YzNkNDBhOTMwMmNlMjUwZA","expires\_in":900,"token\_type":"bearer","scope":null,"refresh\_token":"ODk5Y2FmMDhlYWZhMWZjMTAwNzI1OGIxMjExNGEyMzBiYmY1MWNhZTE4Zjk4Y2NhOTc5ODZlZDc4ZmZjYjY4Zg"}

**Step 3:** BCM will use the below rentTrack API, to create account in RentTrack for extra credit users

POST /api/partner/users.{\_format}

**Input** :

| Parameter | Type | Required? | Description |
| --- | --- | --- | --- |
| type |  | false | Only user type 'tenant' is supported. |
| first\_name |  | false | User firstname. |
| last\_name |  | false | User lastname. |
| email |  | false | User email. |
| password |  | false | User password. |
| holding\_id |  | false | Holding id in RentTrack system. |
| resident\_id |  | false | Accounting system resident id. |

**Output** :

| Parameter | Type | Versions | Description |
| --- | --- | --- | --- |
| 201- Returned when successful |  | | |
| id | integer | \* |  |
| url | string | \* |  |

**Step 4** : update the customer\_data table with the resident status as USER\_CREATED.

**Step 5:** Invoking sandbox RentTrack API with the required parameters to get the access token for the created user as given below

**Request** :

<https://my.sandbox.rt-stg.com/oauth/v2/token>[?](https://my.sandbox.rt-stg.com/oauth/v2/token?client_id=26_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant_type=password)

[client\_id=26\_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client\_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username={email}&password={password}&grant\_type=password](https://my.sandbox.rt-stg.com/oauth/v2/token?client_id=26_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant_type=password)

**Response :**

{"access\_token":"OGI4NWM4NDY3NTE3ZDE3MmYwYThmNGI3ZDk0ODJhYmMwMDIzOTU5YzBlYzViYmU2YzNkNDBhOTMwMmNlMjUwZA","expires\_in":900,"token\_type":"bearer","scope":null,"refresh\_token":"ODk5Y2FmMDhlYWZhMWZjMTAwNzI1OGIxMjExNGEyMzBiYmY1MWNhZTE4Zjk4Y2NhOTc5ODZlZDc4ZmZjYjY4Zg"}

**Step 6 :** update the customer\_data table with the fetched access token and refresh token related values.

**Step 7 :** Using the *access\_token*, BCM can access any resource for the particular tenant in the RentTrack system. BCM will store the access\_token in customer\_data table against the ucid.

**Step 8** :

If the access\_token is expired (identified by expires\_in parameter value), BCM will invoke the refresh call using the refresh\_token to get a fresh access\_token.

**Request**:

[https://my.sandbox.rt-stg.com/oauth/v2/token?client\_id=26\_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client\_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww](https://my.sandbox.rt-stg.com/oauth/v2/token?client_id=26_26twn8ycdge8wo4gcc8k8kwwkwwocw00goc4o488s08g00w00w&client_secret=4k7iv14um3k0cwks4gwwg8k80oc4o48cgkog8g0cs48g884cww&username=ibell@progrexion.com&password=cdcR0cks!&grant_type=password)&refresh\_token=ODk5Y2FmMDhlYWZhMWZjMTAwNzI1OGIxMjExNGEyMzBiYmY1MWNhZTE4Zjk4Y2NhOTc5ODZlZDc4ZmZjYjY4Zg&grant\_type=refresh\_token Host: my.renttrack.com

**Response:**

{ "access\_token": "ZjYwZDEzOTgzMjJmYjc4NWRlYjdkOWZjMTMzYjg3MTAyYWU2Mzc3NWVkYjRhZjBiOGY3ZjFmNzY4OTkzNTcxNA", "expires\_in": 3600, "token\_type": "bearer", "scope": null, "refresh\_token": "MGMxODdmZjkxZmI1Mzk5ZDkzMTFhY2NmZDdiMDQ4Y2Y0MmE1ZDFiNWRiNjhmNzc5MWQzMWE1MTJhMTkwZjg0MA" }

**Step 9** : BCM will use the below rentTrack API, to update DOB for the created user in RentTrack.

PATCH /api/tenant/details.{\_format}

**Input** :

| Parameter | Type | Required? | Format | Description |
| --- | --- | --- | --- | --- |
| first\_name | string | false | {length: min: 1, max: 65}, {match: /^[a-zA-Z \-'\s]{1,65}$/}, {not blank} |  |
| last\_name | string | false | {length: min: 1, max: 65}, {match: /^[a-zA-Z \-'\s]{1,65}$/}, {not blank} |  |
| middle\_name | string | false |  |  |
| email | string | false | {not blank}, {email address} |  |
| phone | string | false | {match: /^\d{10}$/} |  |
| date\_of\_birth | DateTime | false |  |  |
| ssn | string | false | {match: /^\d{3}-\d{2}-\d{4}$/}, {match: /^\d{3}-\d{3}-\d{3}$/} | Tenant social security number. |
| email\_notification | boolean | false |  |  |
| offer\_notification | boolean | false |  |  |
| culture | string | false | {not blank} |  |

**Output**:

204 - Success

**Step 10** : Using the access\_token, BCM will be able to call the below API to create a subscription for the created user.

POST /api/tenant/subscriptions.{\_format}

**Input** :

| Parameter | Type | Required? | Format | Description |
| --- | --- | --- | --- | --- |
| plan\_name | string | true | {not blank}, [score\_track|score\_track\_lite|credit\_track|consumer\_premium|consumer\_lite|consumer\_levelcredit\_report] | consumer\_lite is the default value |
| promotion\_code | string | false |  | CREDITCOMFREE is the default value |

**Output** :

| Parameter | Type | Versions | Description |
| --- | --- | --- | --- |
| 201 - Returned when successful |  | | |
| id | integer | \* |  |
| url | string | \* |  |
| payment\_account\_url | string | \* |  |
| plan\_name | string | \* | {'score\_track'|'credit\_track'} |
| period | string | \* | {'monthly'|'yearly'} |
| status | string | \* | {'active'|'cancelled'|'delinquent'} |
| last\_payment\_date | DateTime | \* | Format "YYYY-MM-DD" |
| next\_payment\_date | DateTime | \* | Format "YYYY-MM-DD" |
| next\_payment\_amount | float | \* |  |
| discounted\_until | DateTime | \* | Format "YYYY-MM-DD" |
| free\_until | DateTime | \* | Format "YYYY-MM-DD" |
| enabled\_at | DateTime | \* | Format "YYYY-MM-DD" |
| cancelled\_at | DateTime | \* | Format "YYYY-MM-DD" |
| external\_property\_id | string | \* |  |

**Step 11:** BCM will insert the record in Customer\_subscription table with the subscription Id and status as ACTIVE for the customer data Id.

**Step 12 :** For the subscribed user, BCM will be invoke the below API to create a lease for the given lease details.

POST /api/tenant/leases.{\_format}

**Input :**

| Parameter | Type | Required? | Format | Description |
| --- | --- | --- | --- | --- |
| address | object (LeaseAddressDTO) | true |  |  |
| address[address1] | string | true | {not blank} |  |
| address[address2] | string | false |  |  |
| address[state] | string | true | {not blank} |  |
| address[city] | string | true | {not blank} |  |
| address[zip] | string | true | {not blank} |  |
| address[country] | string | false |  |  |
| rent | float | false |  | Rent amount. Include decimal. |
| due\_day | integer | false |  | Day of the month. |
| landlord | object (LeaseLandlordDTO) | false |  |  |
| landlord[type] | string | false |  |  |
| landlord[name] | string | false |  |  |
| landlord[phone] | string | false |  |  |
| landlord[email] | string | false |  |  |
| start\_at | DateTime | false |  | Lease start date. Format YYYY-mm-dd. |

**Output** :

| Parameter | Type | Versions | Description |
| --- | --- | --- | --- |
| 201 - Returned when successful |  | | |
| id | integer | \* |  |
| url | string | \* |  |
| address | object (LeaseAddress) | \* |  |
| status | string | \* |  |
| rent | string | \* |  |
| start\_at | string | \* | Format "YYYY-MM-DD" |
| finished\_at | string | \* | Format "YYYY-MM-DD" |
| due\_day | string | \* |  |
| landlord | object (LeaseLandlord) | \* |  |
| back\_report\_start\_at | string | \* | Format "YYYY-MM-DD" |

**Clarifications**:

1. BCM is not capturing any lease information in BCM database as per the clarification

2. Create Tenant API request body has been modified as below to handle the create Lease service internally

{

"type": "tenant",

"firstName": "Smithh",

"lastName": "Steve",

"email": "bcm\_user60010@test.com",

"dob": "1980-07-30",

"leaseData":{

"rental\_address":{

"address1":"No 250",

"address2":"Hartford Avenue",

"state":"Woodhaven",

"city":"Palmetto",

"zip":"34227",

"country":"NY"

},

"rent": "45.0",

"dueDay": "10",

"landlord":{

"type":"individual",

"name":"Michael",

"phone":"9879879871",

"email":"michael@yahoo.com"

},

"start\_at": "2019-09-25"

}

}

**Code / Framework References**

**Misc:**