Functional and technical analysis

User management

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# User management

## General description

User management module is used manage the users. This module provides several functionalities for managing the users. This module includes the following functional aspects:

* Create new user – New users/customer users can be created using this module if current logged in user has enough rights to create new users.
* Edit existing user details - User can updates the profile using this feature.
* Activate user – Logged in user can activate other sub-user who has lower access rights than logged in user's rights.
* Deactivate user - Logged in user can deactivate other sub-user who has lower access rights than logged in user's rights.
* Reset user – Logged in user can reset other sub-user who has lower access rights than logged in user's rights. This is same the activate functionality, but it differs at some aspect. In this feature, user reset with active status and if any number of errors occurred during login process, then user will be reset with 0 errors.
* Send new password to user - Using this functionality, user can create new password and send a mail to user regarding his/her new password or display the new password on same page.

For better usability purpose, this module also provides a feature like, hide/show inactive users.

Using this module, user can add/modify the users detail. Based on the access right, merchant, ISP, Merchant group and Abssys user can create number of user accounts. User can modify the existing user details and also create new user from this interface.

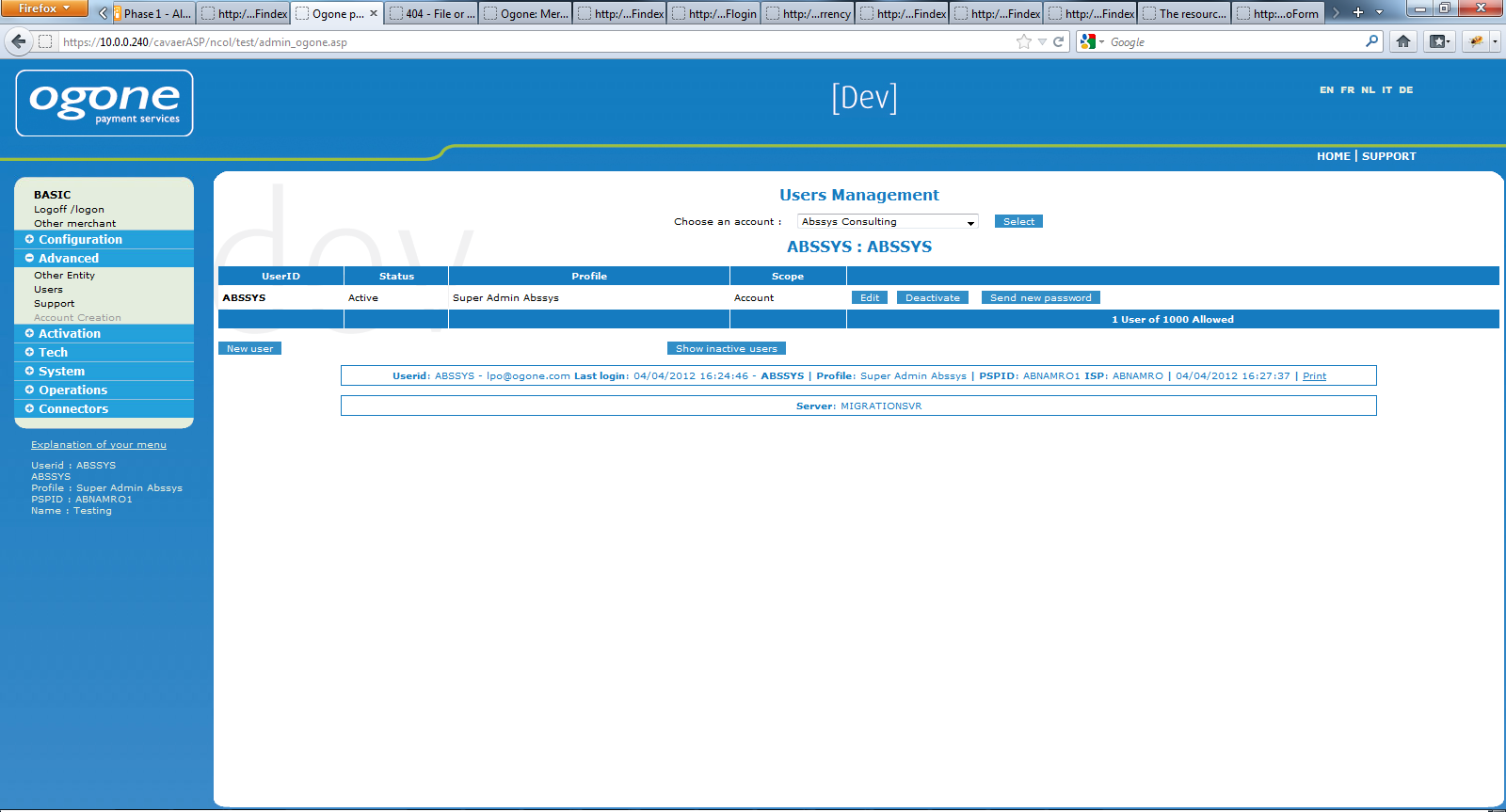
## Navigation and/or Flow

### Request Origination

User list

Request comes from the menu.

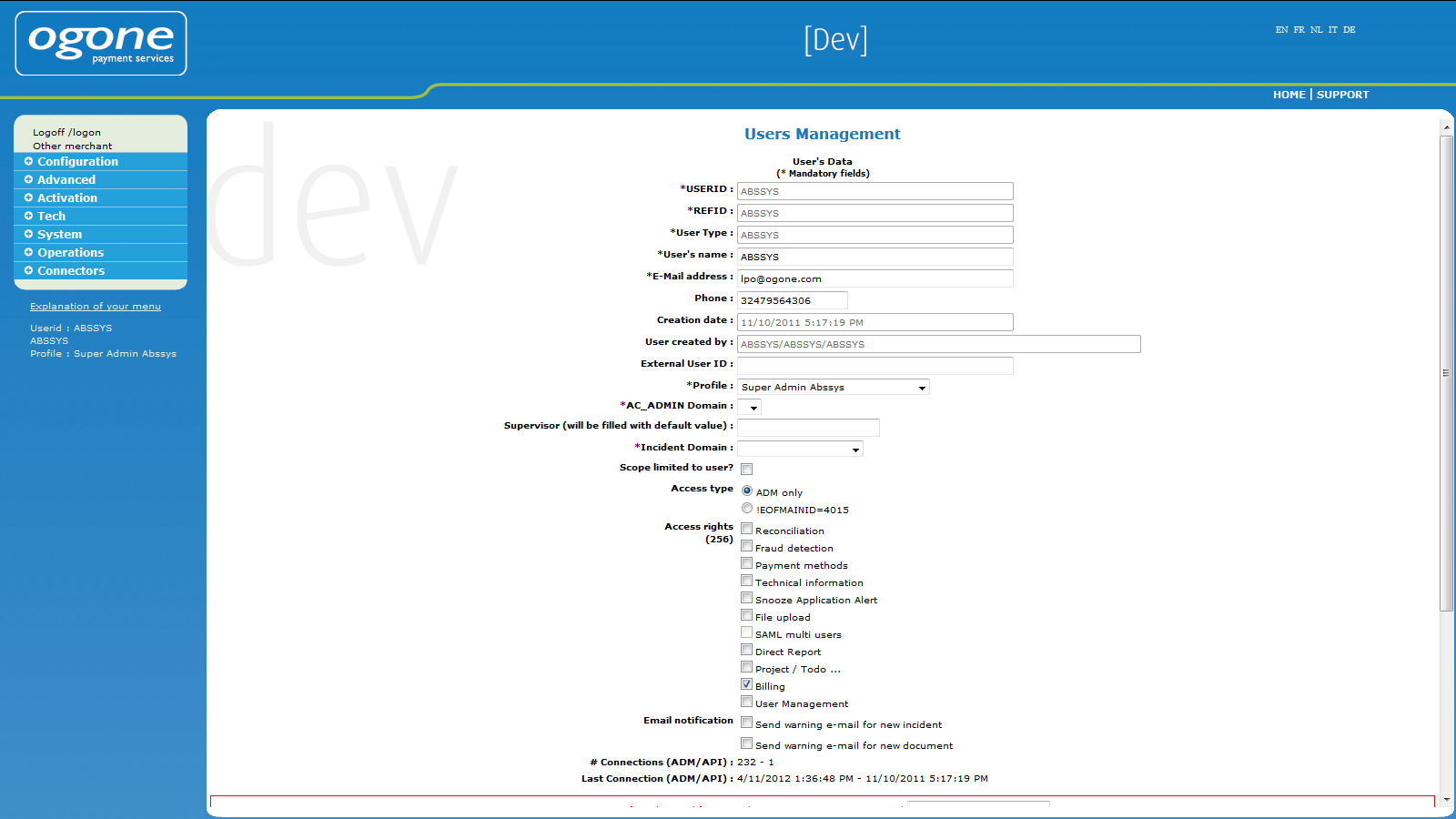
There is a link named “Users” in menu under “Advanced” main menu for ABSSYS user or “Configuration” menu for other users. User can manage user accounts by clicking on ‘users’ menu. Below is the screen for reference

****

**Figure: User Management**

The above screen shows the interface for user list.

This page is accessible through the link rendered on the first part of this module. User can edit details or create new user.

****

**Figure: User Management**

The above screen shows the interface for creating/updating user.

### Destinations

User list

When user clicks on “new user”/“new customer user” button, page will be redirected to edit user page with required parameters are passed on that page.

If user clicks on edit user button, page will be redirected to edit user page with required parameters.

User detail

When user clicks on the Back to List button, page will be redirected to home page of user management with required parameters.

When user clicks on the 'Electronic Reporting for this User' link, page will be redirected to another page

## Dependent processes

### Mailing system

A notification email is sent to the user regarding the new password.

Send user change notification mail to user for user activation and deactivation.

Send user change notification to user for user modification.

### Action tracing

If new password is sent to user then stores the auditing information regarding password sent notification.

Stores the auditing information if user has been reset.

Stores the auditing information if user is activated.

Stores the auditing information if user is deactivated.

Stores the auditing information if provided password by user is invalid.

Stores the auditing information regarding the modification in user account details with all modified values.

Stores the auditing information regarding the new user creation with all inserted values.

### Auditing

If user's NBRERR field has value greater 3 then posts the audit event (send alert email) to support team regarding user deactivation. Otherwise posts the audit event to support regarding password error.

For ABSSYS user, post the audit event for new user record creation with existing details from PROFILES and TS\_DOMAIN tables.

### Logging

Logs the detail of merchant not found if there is no data found with current PSPID during mail sending process for user activation and deactivation.

Logs the detail of merchant not found corresponding to merchant group if there is no data found with current PSPID during mail sending process for user activation and deactivation.

Logs the detail of user not found to send a change notification if there is no data found with current USERID, REFID and REFKIND.

Logs the query which updates the user details for invalid password and increase count for number of errors.

Log the error for post audit event if any error occurred during post audit event of new user creation for ABSSYS user type.

## Fields and validation

### User detail

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Label name** | **Description** | **Validation** | **Error messages** |
| **UserId** | **USERID** | User Id | Required | User id is required |
| Min length: 2 (for ABSSYS user) and 4(for other than ABSSYS user)  Max length: 15 | User id length should be between 2 and 14 characters.  OR  User id length should be between 4 and 14 characters. |
| **RefId** | **REFID** | Reference Id | Read only field. It is already filled with values of root user. |  |
| **UserType** | **User Type** | User reference kind | Read only field. It is already filled with values of root user. |  |
| **UserName** | **User's name** | User name | Required | User's name is required |
| Max length: 35 | User's name can't be greater than 35 characters. |
| Regex validation:  Alphanumeric with space | Only alphanumeric and space characters are allowed. |
| **Email** | **E-Mail address** | User email address | Required | Email is required |
|  | Valid Email address alphanumeric should allow (.) and (@) special characters Max Length: 50 | Email is invalid |
| **PhoneNumber** | **Phone** | Phone number | Regex validation:  Numeric with space | Only numeric and space characters are allowed. |
| Max length: 50 | Phone number can't be greater than 50 characters. |
| **ExternalUserId** | **External User ID** | External user Id | Regex validation:  Alphanumeric | Only alpha-numeric characters are allowed. |
| Max length: 35 | External user id can't be greater than 35 characters. |
| **CreationDate** | **Creation date** | Creation date | Read only field. It is already filled with values of root user. |  |
| **UserCreatedBy** | **User created by** | user details in form of USERID/REFID/REFIND | Read only field. It is already filled with values of root user. |  |
| **Profile** | **Profile** | It indicates the profile rights. | Required | Profile is required. |
| **AdminDomain** | **AC\_ADMIN Domain** |  | Required | AC\_ADMIN domain is required. |
| **Supervisor** | **Supervisor (will be filled with default value)** |  |  |  |
| **IncidentDomain** | **Incident Domain** |  | Required | Incident domain is required. |
| **externalSamlLogin** | **External SAML login** | External SAML login |  |  |
| **ScopeLimited** | **Scope limited to user?** |  |  |  |
| **AccessType** | **Access type** | Access type, either ADM or API |  |  |
| **IspList** | **ISP list** | ISP list |  |  |
| **PspidList** | **PSPID list** | PSPID list |  |  |
| **AccessRights** | **Access rights** | Access rights |  |  |
| **EmailNotification** | **Email notification** | Email notification for new incident or document |  |  |
| **DefaultMerchant** | **Merchant by default** |  |  |  |
| **ConnectionUtil** | **#Connections (ADM/API)** | Number of times user accolunt utilized for ADM/API |  |  |
| **LastConnection** | **Last Connection (ADM/API)** | Last login date |  |  |
| **Password** | **Password** | Password | Required only when SAML login is not there | Password is required. |
| Password is invalid. |

## Action events

### Retrieve user list and maintain state for user list

### Choose user account

This scenario comes in picture when current logged in user selects another user account from drop down list. Drop down list contains the user list having value like, “Merchant Group / MGID=*session value of MGID*”.

On selecting the user, get the user type and user id from the above value. And check that selected user id is same as the value in user session. If they do not match and then set mode flag to 0 which indicates that current logged in user has not sufficient rights to administrate selected user's account.

After successfully selecting a new user account, redirect to the user list.

### Show Inactive users

This option is used to show the list of inactive users.

When user clicks on the Show inactive user button, session for showInative will be set. And load the user details such as user id, reference id, reference kind, number of error, lib prompt id, type, LTU from USERS and PROFILES table based on reference id, reference kind and status is Actif or Inactif.

### Hide Inactive users

This option is used to hide the list of inactive users.

When user clicks on the hide inactive user button, session for showInative will be set to false. And load the user details such as user id, reference id, reference kind, number of error, lib prompt id, type, LTU from USERS and PROFILES table based on reference id, reference kind and status is Actif .

### Reset user

Using this option, logged in user can reset details like STATUS to 'Actif' and NBRERR to 0 for current selected user.

Update the user details using query, “Update users set STATUS=Actif and NBRERR=0 where USERID=*current selected user*” but this is possible only if any of following condition is satisfied:

* session of abssys has a value
* session of ISPID has a value
* user id is not same as current selected user id

### Activate user

Using this option, logged in user can activate the selected user. The constraint is, maximum number of users allowed for that user should be less than maximum limit or user should be default API user.

In order to activate user, first of all, get user count based on user type and user id. If user count is greater than maximum users allowed and user is not default API user, then display message like, “The maximum allowed number of users has been reached. Please contact us in order to upgrade your account”. Otherwise update user with STATUS as 'Actif' and NBRERR as 0 if any of the following condition is satisfied:

* session of ABSSYS has a value
* session of ISPID has a value
* user id is not same as current selected user id

Send change notification mail

After successful completion of user activation process, send a change notification mail to user.

If user type is PSPID, then get merchant's ISP, and LANGUE details based on PSPID. These ISP and LANGUE detail will be used in mail data. If merchant status is ACTIF then set flag to send mail.

If user type is MGID, then get merchant's ISP, and LANGUE details based on PSPID and set flag to send mail. These ISP and LANGUE detail will be used in mail data.

For any other user type, set flag to send mail.

If flag to send mail is set, then load appropriate format for mail and send mail to the user.

### Deactivate user

Using this option, logged in user can deactivate the selected user.

Update the user details using query, “Update users set STATUS=Inactif where USERID=*current selected user*” but this is possible only if any of following condition is satisfied:

* session of ABSSYS has a value
* session of ISPID has a value
* user id is not same as current selected user id

Send change notification mail

After successful completion of user activation process, send a change notification mail to user.

If user type is PSPID, then get merchant's ISP, and LANGUE details based on PSPID. These ISP and LANGUE detail will be used in mail data. If merchant status is ACTIF then set flag to send mail.

If user type is MGID, then get merchant's ISP, and LANGUE details based on PSPID and set flag to send mail. These ISP and LANGUE detail will be used in mail data.

For any other user type, set flag to send mail.

If flag to send mail is set, then load appropriate format for mail and send mail to the user.

### Send new password

Using this option, logged in user can send new password to the user. If flag for allow send password and send new password are set then only user can send new password to user.

If user type is PSPID, then get ISP, LANGUE details from merchant based on PSPID and set it as current ISP and current Language. If user type is MGID then get merchant details like LANGUE and ISP based on PSPID and STATUS as 'group' and set it as current ISP and current language. If user type is ISPID then set his/her reference if as current ISP.

Based on the value of current ISP, get ISP details like, DISTRIBUTORFLAG, NAME, EMAIL, TELNO, BRANDING, ISPCONFIG2.

Password will not be send by mail if following conditions are satisfied:

* AND operation between ISPCONFIG2 and 64 is equal to 64 (as per the bit field document)
* session of refkind is ABSSYS or ISPID
* user type should not be ISPID

If current language is null then set it from language session value.

Now based on the user's detail like, user id, reference id, and reference kind get the last password and type of user.

Generate the new password for user and hash it. If user is set to send password by mail then send it to the user's email id using appropriate mail format. Otherwise set screen password message with new password.

Update the USERS table with new password, updated last password, password date, password NBU and number of error.

If password successfully changed then set flag for send new password.

### Retrieve user detail

Check for the sufficient profile rights to access the button controls for “create user” or “modify user”. ([See security section for more details](#_toc2014)).

Get user id, reference id, and user reference kind from requested page and generate hash using these values and compare generated hash with hash got from requested page. If they are not same then display error message “Your account is not yet registered as active. You have to complete the registration procedure before managing your payments”.

**Check for the SAML login** (SAML login is part of phase-3)

* Get value of loginSAML from users table based on the user id, reference id and reference kind. If value is there then it indicates that, there is no requirement of password in order to update the user detail or add new user. If value is not there then, check for the reference kind is ISPID, if it is so, then get loginSAML from ISP. If loginSAML is there again password is not required to update/add user.

If user type is PSPID, then get his/her ISP value and if ISP is FEDICT then exclude main user for further procedure.

Page having user creation mode

If page having user creation mode and user type is ISPID then get ISPLIST and PSPIDLIST from USERS based on reference kind ISPID. These ISP list is used in input control for ISP list (see page rendering section for more details).

If page having user creation mode and user type is MGID then get ISPLIST and PSPIDLIST from USERS based on reference kind MGID. These PSPID list is used in input control for PSPID list (see page rendering section for more details).

Page having user creation mode or updation mode

Retrieve user and his profile details from USERS, PROFILES based on the user id, reference id and user type. If retrieved user id is same as retrieved reference id and user is not ABSSYS user then check-box controls for access rights are disabled.

For ABSSYS user type

* Get THISUSERCONFIG from USERS based on the user id. And binary AND operation between THISUSERCONFIG and 1024 is equal to 1024(as per the bit field description document) and profile rights are not less than 800 then button s for 'modify' and 'create user' are displayed.
* For TEST environment, get IDDOMAIN and SUPID from USERS based on userid which will be user to get selected item from drop-down list of AC\_ADMIN Domain. Get records from TS\_DOMAINS to fill the drop-down list of AC\_ADMIN Domain.
* Get IDDOMAIN field value from INCIDENT\_TYPE\_USER based on the user id.

Based on the user type and profile rights get the users and its profile details which will be used to render drop-down list of 'profile'.

Set flags to show various options for 'Access rights' based on the user type and merchant's enabled options. Set flags for ShowAccessType, ShowAccessCAP, ShowAccessTechPM and ShowAccessReco based on the following conditions. The default value for flag ShowAccessType is true and ShowAccessCAP, ShowAccessTechPM, ShowAccessReco is set to false.

For user type – MGID or ISPID or ABSSYS

* Set values for flags ShowAccessCAP, ShowAccessTechPM, ShowAccessReco to true.

For user type – PSPID

* Get the merchant details based on the PSPID.
* If merchant has enabled option DPR or AFU or MTR or AFD or DMT or DQY then set flag ShowAccessType to true.
* If merchant has enabled option CAP or CAP1 or CAP2 then set flag ShowAccessCAP to true.

If merchant has enabled option RECO1 or COL then set flag ShowAccessReco to true.

### Create new user

Check the password

First of all, system checks user has sufficient access rights in order to insert new record or modify user details. ([See security section for more details](#_toc1947))

While modify or inserting record system check the password provided by the user and the password available in the database by doing the hash string comparison.

For invalid password

* Increment the value of NBRERR field by 1 in USERS table of current logged in user.
* If Number of error (NBRERR) is greater than 3 then display error message “Password is incorrect or disable due to number of errors” otherwise display error message to “Wrong Password” and system stops further processing.

For valid password

* Update the USERS details. It updates the NBRERR field value to 0 for current logged in user.

User limit

If page is requested to add new user and maximum allowed users has a value then get number of users from USERS based on reference id, reference kind and status having ACTIF value. If count is greater than maximum allowed user then display error message “The maximum allowed number of users has been reached. Please contact us in order to upgrade your account”.

***Creation***

Based on the user type, get the values of ISPID list and PSPID list. If user type is ISPID then get ISPID list and if user type is ISPID or MGID then get PSPID list.

Check for the valid email address. If email id is invalid then, prompt error message.

Otherwise,

Get field values from requested form based on the user type.

Generate password for new user and generate hash for the same.

Get number of users from USERS and PROFILE based on the user id, reference id, reference kind and profile. If user count has reached the maximum allowed user's limit then display error message “The maximum allowed number of users has been reached. Please contact us in order to upgrade your account”.

Based on the user type get profile details and if no profile record found then 'viewer of merchant' will be set as a default profile for that user.

If user has enabled “scope limited to user” then set user's LTU field value to 1.

If user type is MGID then get merchant using merchant group id and PSPID (PSPID from requested form's “merchant by default” field value) and if merchant found then set user's DEFPSPID to requested form's “ merchant by default” field value.

Based on the selected value of “Email notification”, perform binary OR operation between selected values.

Check for user existence with the same user id, reference id and reference kind. If such user exists then display error message 'This user id already exists, please choose another one' and systems stops further execution.

Check for the validity of user id. For ABSSYS user, if user id is not between 2 and 14 then display error message. And other than ABSSYS user, if user id is not between 2 and 14 then display error message.

After all validations, insert new user record in USERS table with details: userid, refkind, refid, loginsaml,name, PASSWD, lastpswd, pswddate, pswdnbu, email, status, creuseridfk, crerefkindfk, crerefidfk, profilefk, ltu, ipcreator, defpspid, type, IspList, pspidlist, thisuserconfig, extuserid, ticket\_email\_priority, TIMEZONEID,USEDAYLIGHTSAVINGTIME.

For ABSSYS user

* For other than TEST environment, check for value of supervisor, if it is not there then get it s value from TS\_DOMAINS based on ID\_DOMAIN. After available of all required fields insert user record into USERS table of AC\_ADMIN\_INT database and also made a new entry in TS\_APPARTENACES for that user with values of USERID and IDDOMAIN.
* If user has selected item for “Incident domain” drop-down list then get record from INCIDENT\_TYPE\_USER of NC\_ADMIN\_INT database based on USERID. If no such record found then insert new record for that user with USERID and IDDOMAIN values. Otherwise update existing record with new value of “Incident domain” value.

### Update customer

If user is a customer user then he/she will be redirected to different edit page.

### Update user

If page is requested to update user details then, get user type, user id and reference id from requested page. If these details are not match with session details then it indicates that required parameters are tampered or missing and display error message.

Check the password

First of all, system checks user has sufficient access rights in order to insert new record or modify user details. ([See security section for more details](#_toc1947))

While modify or inserting record system check the password provided by the user and the password available in the database by doing the hash string comparison.

For invalid password

* Increment the value of NBRERR field by 1 in USERS table of current logged in user.
* If Number of error (NBRERR) is greater than 3 then display error message “Password is incorrect or disable due to number of errors” otherwise display error message to “Wrong Password” and system stops further processing.

For valid password

* Update the USERS details. It updates the NBRERR field value to 0 for current logged in user.

Update

Based on the user type, get the values of ISPID list and PSPID list. If user type is ISPID then get ISPID list and if user type is ISPID or MGID then get PSPID list.

Check for the valid email address. If email id is invalid then prompt error message.

Otherwise,

Get field values from requested form based on the user type.

For PSPID user type, if user record's user id is same as reference id then get the value of Email field from users table using USERID, REFID and REFKIND.

User's email and new requested email are not same then, display link to change account email address and link is rendered as “do you want to change also account email address?”, if user click on the link then user will be redirected to change technical information page.

Based on the user type get profile details and if no profile record found then 'viewer of merchant' will be set as a default profile for that user.

If user has enabled “scope limited to user” then set user's LTU field value to 1.

If user type is MGID then get merchant using merchant group id and PSPID(PSPID from requested form's “merchant by default” field value) and if merchant found then set user's DEFPSPID to requested form's “ merchant by default” field value.

Based on the selected value of “Email notification”, perform binary OR operation between selected values.

After getting all field values, update the user details. The following fields are updated based on the various conditions:

* ticket\_email\_priority, loginsaml, name, email, ltu, defpspid, thisuserconfig, extuserid, timezoneid, usedaylightsavingtime fields are updated.
* If user is ABBSYS user then TELNO is also updated.
* If user has changed the profile then PROFILEFK is updated.
* If access type is modified then CONFIGFLAG value is updated with 0 value.
* ISPLIST and PSPIDLIST are updated based on user type.

For ABBSYS user

* For other than TEST environment Update Users table of AC\_ADMIN\_INT database with value of IDOMAIN and Supervisor ID and also update TS\_APPARTENACES table with value of IDDOMAIN.
* If user has selected item for “Incident domain” drop-down list then get record from INCIDENT\_TYPE\_USER of NC\_ADMIN\_INT database based on USERID. If no such record found then insert new record for that user with USERID and IDDOMAIN values. Otherwise update existing record with new value of “Incident domain” value.

## Page Rendering

### Common

Render the header message texted as “User Management”.

Display success/error message regarding send new password if flags sendPassword and allowSendPassword are set then check that sendNewPassword flag is set then check that flag for sendPasswordByMail is set then display warning message “A new password has been correctly sent to userid”. Otherwise display message “New password allocated to user userid: password. (NO EMAIL SENT TO USER!)”.

SendNewPassword flag is not set then, display warning message “Due to a technical error a new password could not be sent to userid”.

### Select user account

Form is rendered to select the account for user of having user type MGID, ISPID, ABSSYS, CUSTID and ACQID. The form for selecting account is rendered in page only if the user has selected another user using “other merchant”.

For ABSSYS user, check that reference kind, reference id should be ABSSYS and session of ABSSYS has a value, then load the option for drop-down list having value formatted like, “ABSSYS/*session value of refid*” and text “ABSSYS Consulting”. And also check for session values of ISPID, MGID, CUSTID and ACQID. If any of this session has a value then load another option value for drop down list for respective reference kind and value for that option is like, for example, ISPID reference kind, “ISPID/*session value of ISPID*” and text “ISP / ISPID=*session value of ISPID*”

For ISPID user, check that reference kind is “ISPID” and session if reference id is equal to session of ISPID. Then load option for drop down list having value like, “ISPID/*session value of ISPID*” and text “ISP / ISPID=*session value of ISPID*”. Again check for session value of PSPID, if it is there then loads another option having value “PSPID/*session value for PSPID*”.

For MGID user, check that reference kind is “MGID” and session if reference id is equal to session of MGID. Then load option for drop down list having value like, “MGID/*session value of IMGID*” and text “Merchant Group / MGID=*session value of MGID*”. Again check for session value of PSPID, if it is there then loads another option having value “PSPID/*session value for PSPID*”.

Button having text “Select” for selecting the user account will be displayed beside the drop down list.

Render the error message “You haven't the required rights to administrate that account…” if selected user from drop down list is not match with the respective session value. For example, for MGID user type, selected user id should match with session value of MGID.

Render the text for current user account as “*user type:* *user id*”.

### User list

Datagrid

Display the grid having columns user id, status, profile, scope and action buttons like activate/deactivate, send new password, etc. For each grid row, values for user id comes from USERID field of USERS table, status from STATUS field, profile from LIB\_PROMPTID and scope based on LTU field value, If LTU is 1 then scope value is “User” otherwise scope value is “Account”.

Grid contains the following action buttons:

* Edit
* Reset - This button is only displayed if user is ABSSYS user or session of ISPID has a value or current user id is not equal to user id get from record. Based in the following conditions it is rendered as different text.
  + For user having number of error greater than 4, text rendered for the button is “Activate *nbrerr* error(s)”.
  + For user having number of error greater than 0, text rendered for the button is “Reset *nbrerr* error(s)”.
  + Other than above cases, button is rendered based on following conditions. And if user type is API and status is Actif, then confirm window will be opened having message like, “Are you sure you want to deactivate the API user account?”
    - For user status Actif, text for button is “Activate”
    - For user status Inactif, text for button is “Deactivate”
* Send new password – This button is displayed based on flag values of alloweSendPassword and sendPassword, if both flags are set then button will be displayed. If user is of API type, then confirm message “Are you sure you want to reset the API user password?” will appear before sending the new password.
* Delete - This button is displayed if following conditions are satisfied:
  + User id for current user record item has a value.
  + Current user record's user id not equals reference id OR session of ABSSYS has a value and user rights greater than or equal to 100.
  + User type is CUSTID.

Render the message for number of users allowed from maximum allowed users. The text for message is “Users nbruser of maxalloweusers allowed”.

New user button

This section renders the buttons to add new user/new customer user, hide inactive users and show inactive users.

The button render to add new user will be available for user type other than CUSTID and it will be in disable mode if maximum number of allowed users limit is reached otherwise it will be in enable mode.

The button render to add new customer user will be available for user type CUSTID and it will be in disable mode if maximum number of allowed users limit is reached otherwise it will be in enable mode.

Hide/show inactive users button

The button rendered to show inactive user if the session of “showactif” has not a value, otherwise hide active users button will be displayed.

### User detail

Render the header message “User Management” and sub header message “User's data”.

Render input controls for 'User id', 'Ref id', 'User type', 'User name' and 'Email Address'.

Render input control for 'Phone number' if parent user is ABSSYS and user reference kind is ABSSYS.

Render drop-down list to select the time zone. Drop-down list for timezone contains items which are retrieved using TIMEZONE table.

Render input control for 'external user id'.

Update user controls

* Render input control for 'creation date'.
* Render input control for 'User create by' if user record's field CREUSERIDFK, CREREFIDFK and CREREFKINDFK have values.
* Render drop-down list for 'Profile'
* if user record's user id is same as the reference id and profile record set have values then for each profile value, user's profile rights is matched with profile, then add that profile item in drop-down list.
* Otherwise, load all profiles in drop-down list. And mark user's profile as selected.

Create user controls

* Render input control for 'User created by' having default value from session (sessions of userid, refid, refkind).
* Render drop-down list for 'Profile'. And load all profiles in drop-down list.

Common user controls

For ABSSYS user and other than TEST environment

1. If page having updation mode or creation mode then render drop-down list for 'AC\_ADMIN domain'. If one of item in this list is same as user's IDDOMAIN then mark it selected item.
2. Render input control for 'Supervisor' having value from user's SUPID.
3. Render drop-down list for 'Incident domain' with the following items:

* Value – "1", Text - "ADMINISTRATIVE"
* Value –"16", Text - "DBA"
* Value –"18", Text - "FINANCE"
* Value –"17,19,20", "INTERNAL SUPPORT"
* Value –"0,1,2,3,4,9,10,11,12,13,14,15", Text - "L1 CUSTOMER CARE"
* Value –"0,1,2,3,4,9,10,11,12,13,14,15,21", Text - "L2 SUPPORT"
* Value –"6",Text - "L3 BACK-END"
* Value –"5", Text - "L3 FRONT-END"
* Value –"7", Text - "L3 SECURITY"
* Value –"7,8", Text - "L3 SYSTEM"
* Value –"5,6,16,21", Text - "MGMT DEV"
* Value –"5,6,7,8,16,17,19,20,21", Text - "MGMT IT"
* Value –"7,8,17,19,20,21", Text - "MGMT SYS"
* Value –"3", Text - "SALES"

If any record from this drop-down is match with INCIDENT\_TYPE\_USER's IDDOMAIN then mark it selected item.

For all users

If SAML login is there then render input control for 'External SAML login'.

Render check-box control for 'scope limited to user', it is selected if user's LTU field value is 1and page having updation mode.

Render input control for ISP list, PSPID list or radio button control for 'Access type' based on the following criteria:

* For ABSSYS user
  + Render the radio button control to select 'Access type' either ADM or API based on the following conditions:
    - Render 'API only' and mark it as selected if page is in updation mode and user's reference id and user id are not same and user's type is API.
    - Render 'ADM only' and mark it as selected if page is in updation mode and user's reference id and user id are not same and user's type is ADM.
  + Render input control for 'ISP list' if one of the following condition is satisfied:
    - Page having updation mode and user's reference kind is ISPID.
    - User type is ISPID
  + Render input control for 'PSPID list' if one of the following condition is satisfied:
    - Page having updation mode and user's reference kind is ISPID or MGID.
    - User type is ISPID or MGID
* Flag set to true for ShowAccessType
  + Render input control for 'PSPID list' if one of the following condition is satisfied:
    - Page having updation mode and user's reference kind is ISPID.
    - User type is ISPID.
  + Render the radio button control to select 'Access type' having only one option 'API' if page having updation mode and user's reference kind is ISPID. Mark it as selected if user's type is API.
* Other than above cases
  + Render input control for 'PSPID list' if one of the following condition is satisfied:
    - Page having updation mode and user's reference kind is ISPID.
    - User type is ISPID.

Render check-box controls for 'Access rights' to select various rights. The check-box controls for various options are rendered based on the following conditions. For ABSSYS user THISUSERCONFIG value from user is displayed if check-box controls are in disabled mode.

* If ShowAccessReco is set to true then render 'reconciliation' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 1 is true and page is in updation mode.
* If ShowAccessCAP is set to true then render 'Fraud detection' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 16 is true and page is in updation mode.
* If ShowAccessTechPM is set to true
  + Render 'Payment methods' option. Mark it as checked if Boolean AND operation between user's THISUSERCONFIG value and 4 is true and page is in updation mode.
  + Render 'Technical information' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 8 is true and page is in updation mode.
  + Render 'Snooze Application Alert' option if user is ABSSYS user. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 512 is true and page is in updation mode.
* For ABSSYS user and page is updation or creation mode
  + Render 'File upload' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 2 is true and page is in updation mode.
  + Render 'Direct report' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 64 is true and page is in updation mode.
  + Render 'Project/Todo...' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 128 is true and page is in updation mode.
  + Render 'Billing' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 256 is true and page is in updation mode.
  + Render 'User management' option. Mark it as checked if boolean AND operation between user's THISUSERCONFIG value and 1024 is true and page is in updation mode.

For ABSSYS user, render check-box controls for 'Email notification'. It contains two options, 'send warning email for new incident' and 'Send warning email for new document'. This control is rendered if any of the following is satisfied:

* Page is in updation mode.
* User type is ABSSYS and reference id is ABSSYS.

For updation mode, mark items as selected if user's reference id is ISPID or ABSSYS, and user's TICKET\_EMAIL\_PRIORITY field has value greater than 0.

Render drop-down list to select merchant. It will be displayed based on the following conditions:

* user type is MGID
* Get merchant's PSPID and COMPANY NAME from MERCHANT based on the MGIDFK and PSPID list. If merchants found then load all items in drop-down list. If page is in updation mode then check merchant's PSPID is same as user's user id then mark that item as selected.

Update user controls

If profile rights greater than 50, render information regarding number of utilization connection and last connection date-time information for ADM/API users.

Common user controls

If authentication other than SAML login, render input control for password field. Password is required in order to add new user or modify user details.

Render 'Create' button to add new user or render 'Modify' button to update user details.

Render link for 'Electronic Reporting for this User'. It will be redirect to another page.

For successful creation of new user, password notification message is displayed. And it is rendered as 'Password accorded to user: *password*' and system also display warning message for change password after first login.

If user details successfully updated then display success message.

Render 'Back to list' button to go back to the user list page.

## Data transfer object and Entities

Indicates one to many relationship

Indicates one to one relationship

USERS

MERCHANT

PROFILE

ISP

TS\_APPARTENANCES

INCIDENT\_TYPE\_USER

TS\_DOMAINS

TIMEZONE

## Database Mapping

### User list

|  |  |  |  |
| --- | --- | --- | --- |
| **Form Field** | **Table Field** | **Table Name** | **Remarks** |
| User ID | USERID | PROFILES | User Id |
| Status | STATUS | PROFILES | User status |
| Profile | LIB\_PROMPTID | PROFILES | Confirm new password |
| - | TYPE | PROFILES | User type. Either ADM or API |
| Scope | LTU field is used to get the value for scope. | USERS | Based on the LTU field value, scope is defined. |
| - | THISUSERCONFIG | USERS |  |
| - | LANGUE | MERCHANT | Merchant language |
| - | TEST | MERCHANT |  |
| - | MODENUM | MERCHANT |  |
| - | PERMISSIONS | MERCHANT |  |
| - | ABONNEMENT | MERCHANT |  |
| - | ALIASMGR | MERCHANT |  |
| - | IMAGES | MERCHANT |  |
| - | USERS | MERCHANT |  |
| - | OPTIONS1 | MERCHANT |  |
| - | OPTIONS2 | MERCHANT |  |
| - | OPTIONS3 | MERCHANT |  |
| - | OPTIONS4 | MERCHANT |  |
| - | OPTIONS5 | MERCHANT |  |
| - | OPTIONS6 | MERCHANT |  |
| - | ISP | MERCHANT |  |

### User detail

|  |  |  |  |
| --- | --- | --- | --- |
| **Form Field** | **Table Field** | **Table Name** | **Remarks** |
| UserId | USERID | USERS | - |
| UserType | REFKIND | USERS | - |
| RefId | REFID | USERS | - |
| UserName | NAME | USERS | - |
| Email | EMAIL | USERS | - |
| Phone | TELNO | USERS | - |
| Password | PASSWD | USERS | - |
| ExternalUserId | EXTUSERID | USERS | - |
| Access type | TYPE | USERS | Either ADM or API only |
| UseDayLightSavingTime | USEDAYLIGHTSAVINGTIME | USERS | - |
| TimeZoneId | TIMEZONEID | USERS | - |
| - | CONFIGFLAG | USERS | - |
| - | PROFILEFK | USERS | - |
| - | NBRERR | USERS | - |
| **AdminDomain** | IDDOMAIN | USERS | - |
| IspList | ISPLIST | USERS | - |
| PspidList | PSPIDLIST | USERS | - |
| ExternalSamlLogin | LOGINSAML | USERS | - |
| AccessRights | THISUSERCONFIG | USERS | - |
| - | SUPID | USERS | - |
| - | TICKET\_EMAIL\_PRIORITY | USERS | - |
| ScopeLimitedToUser | LTU | USERS | - |
| MerchantByDefault | DEFPSPID | USERS | - |
| - | LASTPSWD | USERS | - |
| - | PSWDDATE | USERS | - |
| - | STATUS | USERS | - |
| - | PSWDNBU | USERS | - |
| - | CREUSERIDFK | USERS | - |
| - | CREREFIDFK | USERS | - |
| - | CREREFKINDFK | USERS | - |
| - | IPCREATOR | USERS | - |
| UserId | USERID | USERS | Table domicile in AC\_ADMIN\_INT database |
| UserName | FULLNAME | USERS | Table domicile in AC\_ADMIN\_INT database |
| UserId | LOGIN | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | RATE | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | STATUS | USERS | Table domicile in AC\_ADMIN\_INT database |
| **AdminDomain** | IDDOMAIN | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | COMMISSION | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | GROUPID | USERS | Table domicile in AC\_ADMIN\_INT database |
| UserId | FEUSERID | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | FEREFID | USERS | Table domicile in AC\_ADMIN\_INT database |
| - | FEREFKIND | USERS | Table domicile in AC\_ADMIN\_INT database |
| EmailAddress | EMAIL | USERS | Table domicile in AC\_ADMIN\_INT database |
| Supervisor | SUPID | USERS | - |
| - | CUR\_COMM | USERS | - |
| - | LTU | PROFILES | - |
| - | USERCONFIG | PROFILES | - |
| - | PROFILE | PROFILES | - |
| - | LIB\_PROMPTID | PROFILES | - |
| - | RIGHTS | PROFILES | - |
| - | ACQID | PROFILES | - |
| - | ISPID | PROFILES | - |
| - | PSPID | PROFILES | - |
| - | ISPNOLIST | PROFILES | - |
| - | ISPLIST | PROFILES | - |
| - | PSPIDNOLIST | PROFILES | - |
| - | PSPIDLIST | PROFILES | - |
| - | MGID | PROFILES | - |
| - | ABSSYS | PROFILES | - |
| - | IDDOMAIN | INCIDENT\_TYPE\_USER | Table domicile in NC\_ADMIN\_INT database |
| - |  | TS\_DOMAIN | Table domicile in AC\_ADMIN\_INT database |
| - | PSPID | MERCHANT | - |
| - | ISP | MERCHANT | - |
| - | MGIDFK | MERCHANT | - |
| - | ISP | ISP | - |
| - | LOGINSAML | ISP | - |
| - | ID | TIMEZONE | - |
| - | DISPLAYNAME | TIMEZONE | - |
| - | USEDAYLIGHTSAVINGTIME | TIMEZONE | - |
| - | UTCOFFSET | TIMEZONE | - |

## Security

### User list

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 5 | 5 | 5 | 5 | 5 | 5 |
| **User authenticated** | NA | Yes | Yes | NA | Yes | Yes |
| **CSRF validated** | NA | Yes | Yes | NA | Yes | Yes |
| **User manager enabled** | NA | Yes | Yes | NA | Yes | Yes |
| **Ref kind validated** | NA | Yes | Yes | NA | Yes | Yes |
| **Https requested** | NA | Yes | Yes | NA | Yes | Yes |
| **Merchant selected** | NA | NA | No | NA | No | No |

### Activate/Deactivate/Reset/Send new password

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 5 | 5 | 5 | 5 | 5 | 1000 |
| **User authenticated** | NA | Yes | Yes | NA | Yes | Yes |
| **CSRF validated** | NA | Yes | Yes | NA | Yes | Yes |
| **User manager enabled** | NA | Yes | Yes | NA | Yes | Yes |
| **Ref kind validated** | NA | Yes | Yes | NA | Yes | Yes |
| **Https requested** | NA | Yes | Yes | NA | Yes | Yes |
| **Merchant selected** | NA | NA | No | NA | No | No |
| **THISUSERCONFIG and 1024** | NA | NA | NA | NA | NA | 1024 |

### User detail

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 1000 | 5 | 5 | 5 | 5 | 5 |
| **User authenticated** | NA | Yes | Yes | NA | Yes | Yes |
| **CSRF validated** | NA | Yes | Yes | NA | Yes | Yes |
| **User manager enabled** | NA | Yes | Yes | NA | Yes | Yes |
| **Ref kind validated** | NA | Yes | Yes | NA | Yes | Yes |
| **Https requested** | NA | Yes | Yes | NA | Yes | Yes |
| **Merchant selected** | NA | NA | No | NA | No | No |

### Add/Update user

**For ABSSYS user**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 5 | 5 | 5 | 5 | 5 | 800 |
| **Merchant selected** | NA | NA | No | NA | No | No |

**For All users without SAML login**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Password required** | NA | Yes | Yes | Yes | Yes | Yes |

### Add/Update user button visibility

**For ABSSYS user**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 5 | 5 | 5 | 5 | 5 | 1000 |
| **Merchant selected** | NA | NA | No | NA | No | No |

**Other than ABSSYS user**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Customer** | **Merchant** | **ISP** | **Acquirer** | **MerchantGroup** | **Ogone** |
| **Profile** | 5 | 5 | 5 | 5 | 5 | 5 |
| **Merchant selected** | NA | NA | No | NA | No | No |